

to meet to pipeline as of December 1962

COMPLETIONS

Entered in NID File ☒

Entered On S R Sheet ☒

Location Map Pinned ☒

Card Indexed ☒

IWR for State or Fee Land ☐

COMPLETION DATA:

Date Well Completed 12-2-61

OW _____ WW _____ TA _____

GW ☒ OS _____ PA _____

Checked by Chief RRL

Copy NID to Field Office _____

Approval Letter _____

Disapproval Letter _____

Location Inspected _____

Bond released _____

State of Fee Land _____

LOGS FILED

Driller's Log 1-11-62

Electric Logs (No. 1) 3

E _____ I _____ E-I ☒

GR _____ GR-N _____ Micro ☒

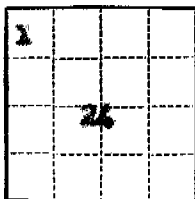
Lat _____ Mi-L _____ Sonic 2 Others _____

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City, Utah

Lease No. Unit 01307

Unit _____



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

September 12, 1961

Well No. Unit No. 7 is located 373 ft. from N line and 777 ft. from W line of sec. 24

10.5 24 10.5 23 E. S. 1. E. 1. E.
(Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Southman Canyon Uintah County Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the land surface above sea level is 4530 ft. (Ungraded Ground)

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Proposed Work:

1. Drill 12-3/4" hole to 50'±, open hole from 12-3/4" to 26".
2. Run and cement 16" conductor pipe with 75 sacks of cement.
3. Drill 12-3/4" hole to 650'±.
4. Run and cement 10-3/4", 40.5#, J-55 casing at 650'± with 400 sacks of cement.
5. Drill 9" hole to 6500'± (objectives Wasatch, Mesaverde).
6. If commercial production is obtained, a supplementary completion will be issued.

Surface formation is Uinta.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company

Address Post Office Box 1200

Farmington, New Mexico

Original Signed By
W. M. MARSHALL

By _____

W. M. Marshall
Title Division Exploitation Engineer

BEST COPY
AVAILABLE

R. 23 E. SLB & M

1/4 Cor. in place

NOTE: THE ELEVATIONS HEREON WERE
DETERMINED FROM THE GIVEN
GROUND LINE ELEVATION OF THE
ELPASO NATURAL GAS COMPANY
SOUTHMAN CANYON UNIT No. 3
OF 5599.

RP - 1" x 2" HUB & 4' FLAG - S. 0° 16' E., 162.4 FT.
RP - 1/2" RE-BAR & 4' FLAG - S. 89° 44' W., 276.6 FT.
BM & RP - 1/2" RE-BAR & 4' FLAG - N. 89° 44' E., 351.5 FT.

BM - TOP OF 1/2" RE-BAR = EL. 4978.2

LOG. - UNGRADED GROUND = EL. 4930

SEE FIELD NOTES FOR TRAVERSE CHECK TIE.

S. 0° 01' E. 2640' record

Calc. S. 89° 41' E. 7909.6'

15 14
22 23

T. 10 S.

14 13
23 24

373'

2636.5'

1/4 Cor. in place

S. 0° 01' E. record

NOTE: THIS LOCATION WAS DETERMINED BY USING THE
NORTH 1/4 CORNER OF SEC. 24, THE WEST 1/4 CORNER OF
SEC. 14, BOTH CORNERS IN PLACE, THE GLO RECORD
BEARING AND DISTANCE FROM THE WEST 1/4 CORNER OF
SEC. 14 TO THE SOUTHWEST CORNER OF SEC. 14;
CALCULATED TIE FROM THE RECORD SOUTHWEST CORNER
OF SEC. 14 TO THE NORTH 1/4 CORNER OF SEC. 24,
THENCE ESTABLISHING THE NORTHWEST CORNER OF
SEC. 24 BY PROPORTIONATE METHODS.

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS
MADE BY ME, AND THAT THE SAME ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



John A. Kroeger
JOHN A. KROEGER
UTAH REG. No. 1648

DRAWN BY: WWK

CHECKED BY: JAK

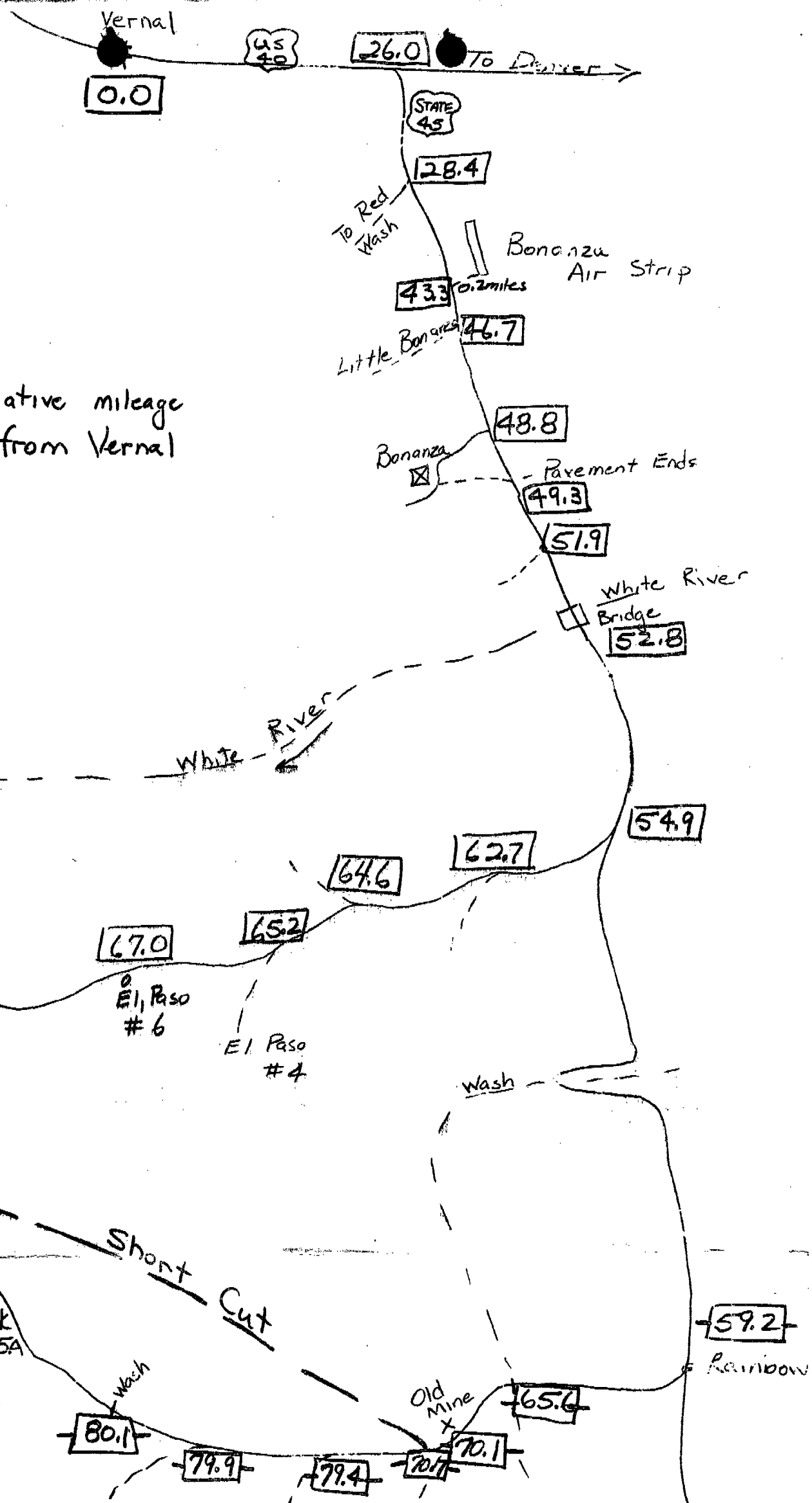
DATE: SEPT. 9, 1961

SHELL OIL COMPANY

SCALE: 1" = 1000'

DWG. No.

LOCATION OF SOUTHMAN CANYON UNIT No. 7
UNITAH COUNTY, UTAH, SEC. 24, T. 10 S. R. 23 E. SLB&M



70.8 Cumulative mileage
94.6 from Vernal

Vernal, Utah to Southman Canyon
9-6-61 No Scale

(Submit in Triplicate)

SUPERVISOR, OIL AND GAS OPERATIONS:

DESIGNATION OF AGENT

The undersigned is, on the records of the Geological Survey, Unit Operator under the Southman Canyon Unit Agreement, dated May 19, 1952, No. 14-05-001-345, approved November 7, 1952,

and hereby designates

NAME: Shell Oil Company
ADDRESS: 1008 West 6th Street, Los Angeles 54, California

as its agent, with full authority to act in its behalf in complying with the terms of the unit agreement and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Oil and Gas Operating Regulations with respect to:

Northwest quarter Northwest quarter (NW/4 NW/4) of Section 24
Township 10 South, Range 23 East, SLV

It is understood that this designation of agent does not relieve the unit operator of responsibility for compliance with the terms of the unit agreement and the Oil and Gas Operating Regulations. It is also understood that this designation of agent does not constitute an assignment of any interest under the unit agreement or any lease committed thereto.

In case of default on the part of the designated agent, the unit operator will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The unit operator agrees promptly to notify the oil and gas supervisor of any change in the designated agent.

This designation of agent is deemed to be temporary and in no manner a permanent arrangement.

This designation of agent is limited to field operations and does not cover administrative action requiring unit operator's specific authorization.

EL PASO NATURAL GAS COMPANY

AUG 22 1961

Date

By: 

Unit Operator

Sam Smith

Attorney-in-Fact

DRILLING REPORT
FOR PERIOD ENDING

Southman Canyon
(FIELD)
Uintah County, Utah
(COUNTY)

10-8-61

Section 24
(SECTION OR LEASE)
T. 10 S., R. 23 E.,
(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
			<p><u>Location:</u> 373' from North Line and 777' from West line of Section 24, T. 10 S., R. 23 E., S.L.B.M., Uintah County, Utah.</p> <p><u>Elevation:</u> KB 4943.2, DF 4942, GR 4932</p>
9-30-61	0		
10-1-61		42	Spudded 9-30-61 @ 10:00 PM. Finished rigging up. Drilled 20" hole to 42'.
10-2-	42		Cemented 16" conductor pipe @ 41' w/147 sacks cement. Finished 5:00 AM. Drilled out with 9" bit. Dev. 1/2° @ 281'.
10-3		464	Drilled 9" hole to 464'. Lost circulation zones below conductor pipe and @ approx. 450 feet. Ream 9" hole to 13-3/4" to depth of 445'. Dev. 1/2° @ 425' Mud: 9.7/44
10-4	464	561	Drilling 9" hole. Dev. 1° @ 650' Mud: 9.4/38
10-5	561	651	Opening 9" hole from 445' to T.D.
10-6		651	Ran and cemented 650' of 40.5# J-55 10-3/4" casing with 595 sacks of Type A cement. Last 150 sacks treated with 2% calcium chloride. Good cement returns to surface. Finished at 1:05 PM. Cement plug sank down from surface. Waited on cement 11 hours. Recemented from top with 40 sacks through 1" pipe.
10-7		651	Welded on and pressured up casing head. Installed BOP.
10-8			Drilled mouse hole. Pressure tested BOP. Drilling at 11:30 AM. Top cement @ 590'. Drilled cement 3 hrs. Drilling with water.

CONDITION AT BEGINNING OF PERIOD			
HOLE			CASING SIZE
SIZE	FROM	TO	DEPTH SET
DRILL PIPE 4-1/2 SIZES			

Robert S. Yeats

SIGNED

SHELL OIL COMPANY

WEEK ENDING Date 10/21/61

CORE FROM 3569 TO 3600

CORES EXAMINED BY Heath

CORE RECORD

AREA OR FIELD Wildcat

COMPANY Shell

LEASE AND WELL NO. Southman Canyon 7

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL- GAS
							CORE OR DITCH
1	3569	3600	31'	<p>6.5' <u>Sand</u>, light grey, fine to very fine, very hard, calcareous cement sub-angular to sub-rounded, moderate to well sorted, variegated grains, white, red, orange, black, blue-green and green. Permeability and porosity appear poor. Thin dark grey shale stress showing cross bedding common in part. Dip less 5° very poor.</p> <p>0.5' <u>Shale</u>, dark grey, top part mixed as inclusions with overlying sand, irregular basal contact and inclusions in top part of underlying sand.</p> <p>2.0' <u>Sand</u>, as above</p> <p>0.5' <u>Shale</u>, dark grey, inclusions in sand as above. Thin irregular sand in middle.</p> <p>4.0' <u>Sand</u>, light grey - very fine, otherwise as above</p> <p>7.5' <u>Shale</u>, dark grey, with alternating thin shaly, gray very fine sand beds, 1/8" to 1" thick. Dip 20°-23° good.</p> <p>1.0' <u>Shale</u>, dark to light grey, streaked and slightly contorted bedding, silty in part, worm borings.</p> <p>3.5' <u>Sand</u>, light grey, very fine, very hard, calcareous, poorly sorted, subangular. Very thinly interbedded with dark grey shale streaks. Dip 20°-25° fair to poor</p> <p>5.5' <u>Shale</u>, variegated, red, gray, green, purple, silty in part</p> <p>3569-3590 Marked with common reference line 3591-3594 Marked with common reference line</p>			None
						5° poor	
						20-23° Good	
						20-25° F.-P	

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). 5-SAND (80-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

Southman Canyon
(FIELD)
Uintah, Utah
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
10-30-61

T. 10 S., R. 23 E.
(SECTION OR LEASE)
(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
11-12 to 11-13-61	5933	5976	Drilled
11-13-61		5976	DST No. 4, 5832-5976. Initial open 15 M, Initial shut-in 94 M, final flow period 60 M, final shut-in 86 M. Rec 13.5 MCF/D gas + 1.1 bbl. slightly gas-cut rat-hole mud. ISIBHP = 2585, rising; FSIBHP = 2920, nearly stabilized; IFP = 185, FFP = 220, rising IHP = 3590, FHP = 3645
11-13 to 11-16-61	5976	6170	Drilled
11-17-61	6170	6210	Core No. 5, Rec. 40', 8' sand and 12' shale, siltstone and coal 8' sand, and 12' shale, siltstone and coal
11-17-61		6210	DST No. 5, 6130-6210. Initial open 15 M, intial shut-in 91 M, final flow period 60 M. final shut-in 90 M. Rec. 234 MCF/D gas, dropping to 92 MCF/D + 0.8 bbls. VSGCM. ISIP = 3070; FSIP = 3370, IFP = 85, FFP = 155, IHP = 3870, FHP = 3880. GTS 9 M.
11-18-61 to 11-21-61	6210	6436	Drilled
11-22-61		6436	Ran Schlumberger induction electric log, and gamma-ray sonic logs W/3' and 1' spacing
11-22 to 11-23-61	6436	6486	Core No. 6, Rec. 49', 31' shale, siltstone and coal + 13' laminated sand.
11-24		6486	Ran 206 joints 4-1/2", 11.6#, J-55, ST&C. Landed at 6486 and cemented with 200 sacks "A" cement plus 4% gel. Flanged up. Making up tubing.
11-25			Ran 2-3/8" tubing. Found cement at 6437. Circulated out mud with clear fresh water. Pulled up and landed tubing with 2-3/8" chamfered collar at 5466' below derrick floor. Installed Christmas tree. Released rig 11:59 P.M., 11-25-61.
			End

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
20	0	42	16	41
13-3/4	42	651	10-3/4	650
9	651	3128	7	3066
6-1/4	3128	6486	4-1/2	6486
DRILL PIPE 3-1/2 SIZES				

Contractor: R. L. Manning
Contract Forman: P. Sharp
Drillers: Cliff Middleton
D. McAdam
C Elledge
Shell Drilling Forman: R. Alberts

Southman Canyon
 (FIELD)
 Uintah, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 10-30-61

24
 (SECTION OR LEASE)
 T. 10 S., R. 23 E.
 (TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
	4741	4773	Core No. 2, Rec. 31-1/2' shale and siltstone, grading to sandstone
10-31-61	4773	4860	Drilling.
10-31 to 11-1-61		4860	DST No. 2, 4789-4860. Initial flow period 15 min, final flow period 60 min, initial and final shut-in periods 90 mins. each. Blow strong decreasing to moderate 20 min. before end of flow period. Flow prover registered 2 psi with 1/4" choke Gas sample had strong medicinal odor. Reversed out. Found 730' (3 bbls.) slightly gas cut mud below back-scuttle valve. (Judge most of 730' of mud to have entered drill string during backscuttle). ISIBHP = 1070, FSIBHP = 1330, IFP = 75 FFP = 75, IHP and FHP = 2400.
11-1-61	4860		Ran in hole. Bit plugged. Made trip to unplug bit. Cleaned out 45' to bottom. Drilling.
11-1 to 11-6-61	4860	5384	Drilled
11-6-61	5384	5434	Core No. 3, Rec. 45.5' sand and shale
11-7 to 11-9-61	5434	5715	Drilled
11-10-61	5715		DST No. 3, 5605-5715. Initial open 15 M, Initial shut-in 150 M, final flow period 60 M, final shut in 90 M. Rec. 217 MCF/D gas + 1.3 bbl. rat-hole mud. ISIBHP=2850, Stabilized, FSIBHP = 2735, rising. IFP = FFP = 80, HP = 2870.
11-10 to 11-12-61	5715	5883	Drilled
11-12-61	5883	5933	Core No. 4, Rec. 49.5' sand w/two thin interbeds of shale

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
20	0	42	16"	41'
13-3/4	42	651	10-3/4"	650'
9	651	3066	7	3066
6-1/4	3066	4741		
DRILL PIPE SIZES 3-1/2				

R. S. Yeats

SIGNED

DRILLING REPORT
FOR PERIOD ENDING

10-30-61

24

(SECTION OR LEASE)

T. 10 S., R. 23 E.
(TOWNSHIP OR RANGHO)

Southman Canyon

(FIELD)

Uintah, Utah

(COUNTY)

DAY	DEPTHS		REMARKS
	FROM	TO	
10-8-61 to 10-11-61	651	1912	Drilled 9" hole to 1912. Lost circ. at 906' and 1656'. At 1909-12; well flowed water (330 ppm NaCl). Mixing gel and LCM in mud. dev. 1/2° at 1084' mud 8.6/75/9.1/2/8/1/2 dev. 3/4° at 1600' mud 8.8/58
10-12-61 to 10-13-61		1912	Added weight material to mud, building up to 14/90. Could not stop water flow.
10-13-61	1912	2037	Drilling with water Dev. @ 2058, 2-3/4°
10-14-61	2037	2673	Drilling with water
10-15-61	2673	3066	Drilling with water Ran Schlumberger IES and Sonic logs.
10-16-61		3066	Ran and cemented 7" casing at 3066' with 250 sacks cement.
10-17-61		3066	Nippled up
10-18-61	3066	3128	Lay down 4-1/2" D.P. Picked up 3-1/2" D.P. Started drilling 6-1/4" hole
10-19-61	3128	3322	Drilled with mud - 8.4 lb.
10-20-61	3322	3499	Drilling
10-21-61	3499	3630	Cut core No. 1 3569-3600, Rec. 31'
10-22-61	3630	3687	D.S.T. No. 1 3547-3650, initial flow 15 min, final flow 60 min. Blow moderate decreasing to weak, last 15 min. Samples were 1.3% methane after 30 min, 10% methane after final shut-in. ISIBHP 1565, FSIBHP 1235, IFP 38, FFP 80, IHP 1720, FHP 1662, reversed out est rec RPC 5 bbl WCM
10-23-61 to 10-30-61	3687	4741	Drilling. Mud 9.7/60/3.6/1/9.5/1-1/4. 10% Oil 1600 ppm Cl 65 rpm, 30,000# Dev. @ 4260' = 1-3/4° 4344' = 2° 4545' = 2°

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
20	0	42	16"	41'
13-3/4	42	651	10-3/4"	650'
DRILL PIPE 4-1/2 SIZE				

R. S. Yeats

SIGNED

SHELL OIL COMPANY

WELL NO. 7

DRILLING REPORT
FOR PERIOD ENDING

Southman Canyon
(FIELD)
Uintah County, Utah
(COUNTY)

10-8-61

Section 24

(SECTION OR LEASE)

T. 10 S., R. 23 E.,
(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
9-30-61	0		<p><u>Location:</u> 373' from North Line and 777' from West line of Section 24, T. 10 S., R. 23 E., S.L.B.M., Uintah County, Utah.</p> <p><u>Elevation:</u> KB 4943.2, DF 4942, GR 4932</p>
10-1-61		42	
10-2-	42		<p>Spudded 9-30-61 @ 10:00 PM.</p> <p>Finished rigging up. Drilled 20" hole to 42'.</p> <p>Cemented 16" conductor pipe @ 41' w/147 sacks cement. Finished 5:00 AM. Drilled out with 9" bit. Dev. 1/2° @ 281'.</p>
10-3		464	<p>Drilled 9" hole to 464'. Lost circulation zones below conductor pipe and @ approx. 450 feet. Ream 9" hole to 13-3/4" to depth of 445'. Dev. 1/2° @ 425' Mud: 9.7/44</p>
10-4	464	561	<p>Drilling 9" hole. Dev. 1° @ 650' Mud: 9.4/38</p>
10-5	561	651	<p>Opening 9" hole from 445' to T.D.</p>
10-6		651	<p>Ran and cemented 650' of 40.5# J-55 10-3/4" casing with 595 sacks of Type A cement. Last 150 sacks treated with 2% calcium chloride. Good cement returns to surface. Finished at 1:05 PM. Cement plug sank down from surface. Waited on cement 11 hours. Recemented from top with 40 sacks through 1" pipe.</p>
10-7		651	<p>Welded on and pressured up casing head. Installed BOP.</p>
10-8			<p>Drilled mouse hole. Pressure tested BOP. Drilling at 11:30 AM. Top cement @ 590'. Drilled cement 3 hrs. Drilling with water.</p>

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZE 4-1/2				

Robert S. Yeats

SIGNED

DITCH SAMPLES

Examined by Yeats 6380 to 6480
 _____ to _____

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
6380	6390	50	<u>Sand</u> , as above.	
		40	<u>Shale</u> and <u>siltstone</u> , as above. <u>Trace fluorescence</u> , as above.	
		10	<u>Coal</u> , as above.	
6390	6400	80	<u>Sand</u> , as above. <u>20% fluorescence</u> , no cut fluorescence.	
		20	<u>Shale</u> and <u>siltstone</u> , trace coal.	
6400	6410	40	<u>Sand</u> , very fine, calcareous, light brown-white, subangular-round, silty.	
		30	<u>Shale</u> , and <u>siltstone</u> , light-dark gray, light-dark brown, carbonaceous.	
		30	<u>Coal</u> , very dark brown-black.	
6410	6420	30	<u>Sand</u> , very fine, calcareous, light brown-white, friable, subangular-round, silty.	
		30	<u>Shale</u> and <u>siltstone</u> , light-dark gray, light-dark brown, carbonaceous.	
		40	<u>Coal</u> , very dark brown-black, lignitic, glossy.	
6420-	6430	20	<u>Sand</u> , as above.	<u>No fluorescence.</u>
		50	<u>Shale</u> and <u>siltstone</u> , as above.	
		30	<u>Coal</u> , as above.	
6430	6436	70	<u>Sand</u> , as above.	
		20	<u>Shale</u> and <u>siltstone</u> , as above.	
		10	<u>Coal</u> , as above.	
6436	6486		See core description, Core 6.	

DITCH SAMPLES

Examined by Yeats 6230 to 6410
 _____ to _____

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
6230	6240	10	<u>Sand</u> , very fine-fine, friable-hard, pale brown, fairly sorted.	
		90	<u>Shale</u> and <u>siltstone</u> , light-dark gray, dark grayish brown, carbonaceous streaks. <u>Trace pale blue-white fluorescence.</u>	
6240	6250	100	<u>Shale</u> and <u>siltstone</u> , as above with thin coal seams.	
6250	6260	20	<u>Sand</u> , very fine, very light brown, friable-hard, quartzose, subangular-round.	
		80	<u>Shale</u> and <u>siltstone</u> , as above.	
6260	6270	50	<u>Sand</u> , very fine, very light brown, quartzose, slightly friable-hard, subangular-round, calcareous, silty.	
		50	<u>Shale</u> and <u>siltstone</u> , as above, with coal partings.	
6270	6280	70	<u>Sand</u> , as above.	
		30	<u>Shale</u> and <u>siltstone</u> , as above.	
6280	6290	60	<u>Sand</u> , as above.	
		40	<u>Shale</u> and <u>siltstone</u> , as above.	
6290	6320	10	<u>Sand</u> , very fine, very light brown, quartzose, carbonaceous, calcareous, friable-hard, subangular-round.	
		90	<u>Shale</u> and <u>siltstone</u> , light-dark gray, light-dark brown with coal partings.	
6320	6330	100	<u>Shale</u> and <u>siltstone</u> , as above.	
6330	6340	70	<u>Shale</u> and <u>siltstone</u> , as above.	
		30	<u>Coal</u> , very dark brown-black, lignitic, glossy.	
6340	6350	20	<u>Sand</u> , very fine, very light gray-light brown, hard, quartzose, subangular-round.	
		50	<u>Shale</u> , and <u>siltstone</u> , as above.	
		30	<u>Coal</u> , as above.	
6350	6360	80	<u>Shale</u> and <u>siltstone</u> , light-dark gray, light-dark brown, carbonaceous streaks, occasionally sandy and calcareous.	
		20	<u>Coal</u> , dark brown-black, lignitic, glossy.	
6360	6370	70	<u>Sand</u> , very fine, light brown, quartzose, fair sorting, silty, subangular-round, carbonaceous, difficulty friable-hard.	
		30	<u>Shale</u> and <u>siltstone</u> , as above.	
6370	6380	70	<u>Sand</u> , as above, friable, calcareous. <u>Trace pale blue fluorescence.</u>	
		20	<u>Shale</u> and <u>siltstone</u> , as above.	
		10	<u>Coal</u> , as above.	

DITCH SAMPLES

Examined by Yeats 6070 to 6230
 _____ to _____

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
6070	6080	40	<u>Sand</u> , as above.	
		60	<u>Shale and Siltstone</u> , as above, <u>10% fluorescence</u> , as above.	
6080	6100	10	<u>Sand</u> , as above.	
		90	<u>Shale and Siltstone</u> , as above, <u>5% fluorescence</u> , as above on 6080-90 sample.	
6100	6110	40	<u>Sand</u> , white, light gray, light gray brown, occasional black and variegated grains, subangular-rounded, quartz-rich, occasionally carbonaceous, occasionally calcareous, friable-hard.	
		60	<u>Shale and Siltstone</u> , light-dark gray, gray brown, sandy, <u>trace pale blue fluorescence</u> .	
6110	6120	50	<u>Sand</u> , as above.	
		50	<u>Shale and Siltstone</u> , as above, <u>5% fluorescence</u> , as above.	
6120	6140	40	<u>Sand</u> , unconsolidated-hard.	
		60	<u>Shale and Siltstone</u> , as above, <u>5% fluorescence</u> , as above.	
6140	6150	10	<u>Sand</u> , as above.	
		90	<u>Shale and Siltstone</u> , as above.	
6150	6160	50	<u>Sand</u> , as above.	
		50	<u>Shale and Siltstone</u> , as above, <u>trace fluorescence</u> , very pale blue.	
6160	6170	20	<u>Sand</u> , as above.	
		80	<u>Shale and Siltstone</u> , as above, <u>10% fluorescence</u> , as above.	
6170	6180	40	<u>Sand</u> , white-tan, very fine-fine, fair-well sorted, occasional black and variegated grains.	
		60	<u>Shale and Siltstone</u> , as above, <u>10% fluorescence</u> , as above.	
6180	6200	80	<u>Sand</u> , as above.	
		20	<u>Shale and Siltstone</u> , as above, <u>10% fluorescence</u> , as above.	
6200	6210	20	<u>Sand</u> , very fine-fine, pale brown, friable-hard, fair sorting, non-calcareous.	
		80	<u>Shale and Siltstone</u> , light-dark gray, dark gray brown, carbonaceous streaks.	
6210	6220	40	<u>Sand</u> , as above.	
		60	<u>Shale and Siltstone</u> , as above, <u>trace pale blue-white fluorescence</u> .	
6220	6230	40	<u>Sand</u> , as above.	
		50	<u>Shale and Siltstone</u> , as above, <u>5% fluorescence</u> , as above.	
		10	<u>Coal</u> , dark brown-black, glossy, conchoidal fracture.	

DITCH SAMPLES

Examined by Yeats 5930 to 6070
 _____ to _____

Well Southman Canyon 7

Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5930	5940	30	<u>Sand</u> , as above	
		70	<u>Shale</u> and siltstone, as above	<u>No fluorescence</u>
5940	5950	60	<u>Sand</u> , as above	
		40	<u>Shale</u> and siltstone, as above	<u>10% weak blue white fluorescence</u>
5950	5960	80	<u>Sand</u> , very fine-fine, white-light grey, subangular-round, friable-unconsolidated, well sorted, calcareous, occasionally black grains, trace variegated grains	
		20	<u>Shale</u> and siltstone, light-dark grey,	<u>5% fluorescence as above</u>
5960	5970	60	<u>Sand</u> , very fine-fine, white-very light brown, subangular-round, friable-unconsolidated, well sorted, calcareous, black grains, occasionally carbonaceous streaks, occasionally variegated grains	
		40	<u>Shale</u> and siltstone, light-dark grey, black	
5970	5980	70	<u>Sand</u> , as above	<u>Trace white fluorescence</u>
		30	<u>Shale</u> and siltstone, as above	
5980	6000	80	<u>Sand</u> , as above	
		20	<u>Shale</u> and siltstone, as above	<u>Trace white fluorescence in 5980-90 sample</u>
6000	6010	20	<u>Sand</u> , white-light grey brown, carbonaceous, very fine-fine, subangular-round	
		80	<u>Shale</u> and siltstone, light-dark grey, grey brown, black	
6010	6020	30	<u>Sand</u> , as above	
		70	<u>Shale</u> and siltstone, as above	
6020	6030	70	<u>Sand</u> , white-medium brown, carbonaceous, very fine-fine, friable-hard, subangular-rounded, occasionally calcareous, occasional black and variegated grains.	
		30	<u>Shale and Siltstone</u> , light-medium gray, light brown, sandy, carbonaceous.	
6030	6040	60	<u>Sand</u> , as above.	
		40	<u>Shale and Siltstone</u> , as above.	
6040	6050	30	<u>Sand</u> , as above.	
		70	<u>Shale and Siltstone</u> , as above.	
6050	6060	40	<u>Sand</u> , as above, with heavy trace white, very fine-hard sand with no black or variegated grains, slightly calcareous.	
		60	<u>Shale and Siltstone</u> , as above, <u>10% pale blue fluorescence</u> .	
6060	6070	70	<u>Sand</u> , as above, <u>20% fluorescence, as above</u> .	
		30	<u>Shale and Siltstone</u> , as above.	

DITCH SAMPLES

Examined by Yeats 5760 to 5930Well Southman Canyon 7

Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5760	5770	60	<u>Sand</u> , friable-unconsolidated, as above	
		40	<u>Shale</u> and siltstone, as above	<u>No fluorescence</u>
5770	5780	30	<u>Sand</u> , as above	
		70	<u>Shale</u> and siltstone, as above	<u>Trace fluorescence as above, very pale milky cut fluorescence</u>
		Tr	<u>Coal</u>	
5780	5790	20	<u>Sand</u> , friable, as above	
		80	<u>Shale</u> and siltstone, as above	<u>No fluorescence</u>
5790	5800	40	<u>Sand</u> , as above	
		60	<u>Shale</u> and siltstone, as above	<u>10% blue white fluorescence</u>
5800	5810	10	<u>Sand</u> , very fine, white, hard, subangular-round, slightly calcareous, occasionally black and variegated grains	
		90	<u>Shale</u> and siltstone, light-medium grey, occasionally dark grey-brown, occasionally carbonaceous, silty, occasionally slightly calcareous	
5810	5830	100	<u>Shale</u> and siltstone, light-dark grey, brown, trace carbonaceous streaks	
5830	5840	30	<u>Sand</u> , very fine-fine, white, hard-friable, subangular-round, slightly calcareous, occasionally black and variegated grains	
		70	<u>Shale</u> and siltstone, as above	
5840	5850	50	<u>Sand</u> , as above	
		50	<u>Shale</u> and siltstone, as above	<u>5% bright blue white fluorescence</u>
5850	5860	20	<u>Sand</u> , as above	
		80	<u>Shale</u> and siltstone, as above	
5860	5870	30	<u>Sand</u> , as above	
		70	<u>Shale</u> and siltstone, as above	
5870	5880	40	<u>Sand</u> , as above	
		60	<u>Shale</u> and siltstone, as above	<u>Trace weak blue white fluorescence</u>
5880	5910	60	<u>Sand</u> , very fine-fine, friable-unconsolidated grains	
		40	<u>Shale</u> and siltstone, as above	<u>Trace fluorescence as above</u>
5910	5920	30	<u>Sand</u> , friable, very fine-fine	
		70	<u>Shale</u> and siltstone, as above	<u>No fluorescence</u>
5920	5930	60	<u>Sand</u> , friable-unconsolidated, as above	
		40	<u>Shale</u> and siltstone, as above	<u>Trace weak blue white fluorescence</u>

DITCH SAMPLES

Examined by Yeats 5630 to 5760
_____ to _____Well Southman Canyon 7

Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5630	5650	70	<u>Sand</u> , as above	<u>10% fluorescence, as above 5640-50 has very pale milky cut fluorescence</u>
		30	<u>Shale</u> and siltstone, as above	
5650	5666	50	<u>Sand</u> , very fine-fine, white, friable, slightly calcareous, well sorted	<u>20% bright bluish white-very pale bluish white fluorescence in sand, pale milky cut fluorescence</u>
		50	<u>Shale</u> and siltstone, as above	
5666	5670	60	<u>Sand</u> , very fine-fine, white, friable, slightly calcareous, subangular-subrounded, occasionally black grains	
		40	<u>Shale</u> and siltstone, light-dark grey, grey brown, black, occasionally carbonaceous	<u>10% fluorescence, as above</u>
5670	5690	70	<u>Sand</u> , subangular-round, friable-unconsolidated	
		30	<u>Shale</u> and siltstone, as above	<u>No fluorescence</u>
5690	5700	100	<u>Sand</u> , very fine-fine, white, slightly calcareous, subangular-round, friable-unconsolidated, occasionally black grains, occasionally carbonaceous streaks.	<u>No fluorescence</u>
5700	5710	100	<u>Sand</u> , as above	<u>5% bright blue white fluorescence, pale milky cut fluorescence</u>
5710	5715	100	<u>Sand</u> , as above	<u>Trace fluorescence as above, very pale milky cut fluorescence</u>
5715	5720	70	<u>Sand</u> , very fine-fine, white, slightly calcareous, subangular-round, friable-hard, occasionally black grains, occasionally carbonaceous streaks	
		30	<u>Shale</u> and siltstone, light-dark grey, occasionally brown, occasionally carbonaceous streaks	<u>Trace fluorescence as above, milky cut fluorescence</u>
5720	5730	60	<u>Sand</u> , as above	
		40	<u>Shale</u> and siltstone, as above	<u>10% fluorescence, as above. Pale milky cut fluorescence</u>
5730	5740	40	<u>Sand</u> , as above	
		60	<u>Shale</u> and siltstone, as above	<u>5% fluorescence as above, very pale milky cut fluorescence</u>
5740	5760	80	<u>Sand</u> , as above	
		20	<u>Shale</u> and siltstone, as above	<u>Trace fluorescence as above in 5740-50, no fluorescence 5750-60</u>

DITCH SAMPLES

Examined by Yeats 5470 to 5630
 _____ to _____

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5470	5480	20	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	
5480	5490	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
5490	5500	20	<u>Sand</u> , very fine-fine, white-light grey, fairly sorted, friable-hard subrounded	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
5500	5520	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
5520	5530	10	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
5530	5550	30	<u>Sand</u> , very fine-fine, white-light grey, occasionally calcareous, silty, fairly sorted, subangular-subrounded	
		20	<u>Siltstone</u> , grey	
		50	<u>Shale</u> , light-dark grey, grey brown, occasionally carbonaceous streaks	
5550	5560	70	<u>Sand</u> , very fine-fine, hard-unconsolidated grains, subangular-subrounded	
		10	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
5560	5570	30	<u>Sand</u> , very fine-fine, hard-unconsolidated grains, subangular-subrounded	
		70	<u>Shale</u> , with occasional siltstone, light-dark grey, grey brown, occasionally carbonaceous streaks	
5570	5590	20	<u>Sand</u> , as above	
		80	<u>Shale</u> and siltstone, as above	
5590	5610	40	<u>Sand</u> , very fine, white, friable-unconsolidated	
		60	<u>Shale</u> and siltstone, as above	
5610	5620	70	<u>Sand</u> , very fine-fine, subangular-subrounded, white, friable	
		30	<u>Shale</u> and siltstone as above	<u>Trace very pale bluish white fluorescence in sand</u>
5620	5630	50	<u>Sand</u> , as above	
		50	<u>Shale</u> and siltstone, as above	50% fluorescence, as above

DITCH SAMPLES

Examined by Yeats 5320 to _____
_____ to _____Well Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5320	5330	30	<u>Sand</u> , very fine-fine, white-light grey, silty-well sorted, subangular-subrounded, occasionally calcareous, occasionally black and variegated grain, friable-hard	
		10	<u>Siltstone</u> , grey carbonaceous	
		60	<u>Shale</u> , as above	
5330	5340	30	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
5340	5350	20	<u>Sand</u> , very fine, well sorted, friable, light grey-white slightly calcareous	
		10	<u>Siltstone</u> , grey	
		70	<u>Shale</u> , as above	
5350	5360	10	<u>Sand</u> , very fine, well sorted, friable, light grey-white, slightly calcareous	
		10	<u>Siltstone</u> , grey	
		80	<u>Shale</u> , light-dark grey, occasionally brown, black	
5360	5390	20	<u>Sand</u> , very fine-fine, as above	
		10	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
5390	5400	60	<u>Sand</u> , very fine-fine, friable, many unconsolidated grains.	
		10	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , light-dark grey, occasionally carbonaceous laminations	
5400	5410	40	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
5410	5434	70	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
5434	5450	10	<u>Sand</u> , white-light grey, very fine-fine, calcareous, hard-slightly friable, occasionally black and variegated grains, fairly sorted, subangular-subrounded	
		10	<u>Siltstone</u> , grey	
		80	<u>Shale</u> , light-dark grey, occasionally carbonaceous	
5450	5460	10	<u>Sand</u> , as above. Trace sand	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
5460	5470	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	No Fluorescence
		70	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 5210 to 5320
 _____ to _____

Well Southman Canyon 7

Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5210	5220	10	<u>Sand</u> , fine - very fine, white, slightly calcareous, occasional black grains	
		10	<u>Siltstone</u> , light-dark grey	
		80	<u>Shale</u> , light-dark grey, with carbonaceous streaks and fragments	
5220	5230	70	<u>Sand</u> , fine - very fine, white subangular-subround, occasional black and green grains, calcareous, friable, occasional carbonaceous streaks	
		10	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
5230	5240	20	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
		Tr	<u>Coal</u>	
5240	5250	20	<u>Sand</u> , as above	
		70	<u>Shale</u> , as above	
		10	<u>Coal</u>	
5250	5260	20	<u>Sand</u> , as above. Rare unconsolidated coarse granules	
		20	<u>Siltstone</u> , grey	
		50	<u>Shale</u> , as above	
		10	<u>Coal</u>	
5260	5270	10	<u>Sand</u> , very fine, white-light grey, carbonaceous, silty	
		10	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	
5270	5280	60	<u>Sand</u> , very fine-fine, mostly unconsolidated, subangular-subrounded grains	
		10	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
5280	5290	10	<u>Sand</u> , very fine, white, silty	
		90	<u>Shale</u> , light-dark grey	
5290	5310	40	<u>Sand</u> , very fine-fine, white-light grey, silty-well sorted, calcareous, occasional black and rare variegated grain, friable-hard	
		10	<u>Siltstone</u> , grey	
		50	<u>Shale</u> , light-dark grey	
5310	5320	20	<u>Sand</u> , very fine, hard, silty, white	
		20	<u>Siltstone</u> , grey, sandy	
		60	<u>Shale</u> , light-dark grey, brown, black	
		Tr	<u>Chert</u> , dark brown	

DITCH SAMPLES

Examined by Yeats 5060 to 5210
_____ to _____Well Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
5060	5070	10	<u>Sand</u> , very fine-fine, well sorted, subangular-round, calcareous, white occasionally black and variegated grains	
		90	<u>Shale</u> , variegated and grey	
5070	5080	30	<u>Sand</u> , mostly unconsolidated, subrounded-round clear quartzite grains, very fine-fine	
		70	<u>Shale</u> , as above	
5080	5090	10	<u>Sand</u> , white, very fine-fine, subrounded, consolidated	
		20	<u>Siltstone</u> , grey, occasionally variegated. Grey siltstone is non-calcareous, with black fragments in it, is sandy, poorly sorted	
		70	<u>Shale</u> , grey and noncalcareous to variegated and calcareous	
5090	5100	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
5100	5110	10	<u>Siltstone</u> , non-calcareous, occasionally maroon	
		90	<u>Shale</u> , mostly non-calcareous, light-dark grey, maroon, orange, brown occasionally yellow	
5110	5120	30	<u>Sand</u> , very fine-fine, consolidated, white, with black grains, also unconsolidated grains	
		10	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above, including trace black shale, coaly	
5120	5130	Tr	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		90	<u>Shale</u> , as above	
5130	5140	10	<u>Sandstone</u> , white, grey, buff, carbonaceous, poorly sorted, calcareous, black grains	
		10	<u>Siltstone</u> , dark grey-black, poorly sorted, carbonaceous	
		80	<u>Shale</u> , variegated, grey, occasionally carbonaceous, trace lignite	
5140	5150	20	<u>Siltstone</u> , grey, green grey, occasionally variegated, carbonaceous, sandy, calcareous	
		80	<u>Shale</u> , mostly light-dark grey, much variegation, occasionally black. Variegated shale is red, maroon, buff, pink, yellow	
5150	5160	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
		Tr	<u>Sand</u> , very fine, white, subrounded, occasionally black grains, silty	
5160	5170	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , white, grey, occasionally yellow	No Fluorescence
		70	<u>Shale</u> , mostly white and light-dark grey, occasionally grey green, red, purple (Variegation is slough)	
5170	5180	20	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above much carbonaceous shale	
5180	5190	30	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
5190	5200	20	<u>Sand</u> , very fine, very light grey-white, hard, silty, slightly calcareous, occasionally black and rare pink grains	
		30	<u>Siltstone</u> , light-dark grey, grey-brown, carbonaceous	
		50	<u>Shale</u> , light-dark grey, grey-brown, occasionally laminated, carbonaceous	
5200	5210	20	<u>Sand</u> , as above, including some unconsolidated grains	
		10	<u>Siltstone</u> , light-dark grey	
		70	<u>Shale</u> , light-dark grey	

DITCH SAMPLES

Examined by Yeats 4880 to 5060
 _____ to _____

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4880	4890	10	<u>Sand</u> , very fine, white, non-calcareous, well sorted, occasional variegated grain	
		20	<u>Siltstone</u> , gray	
		70	<u>Shale</u> , as above	
4890	4910	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , variegated	
		60	<u>Shale</u> , as above	
4910	4920	40	<u>Sand</u> , fine, occasional very fine, non-calcareous, slightly friable, white with black grains, well sorted	
		20	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4920	4940	90	<u>Sand</u> , as above	
		10	<u>Shale</u> , grading to siltstone	
4940	4950	60	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , gray	
		30	<u>Shale</u> , variegated	
4950	4960	50	<u>Sand</u> , very fine to fine, white, sub-angular to round, occasional black and variegated grains, non-calcareous	
		10	<u>Siltstone</u> , light to dark gray, occasional variegated	
		40	<u>Shale</u> , light to dark gray, maroon, yellow, dark gray brown, black	
4960	4970	40	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
4970	4980	10	<u>Sand</u> , very fine, silty, calcareous, white with black grains	
		20	<u>Siltstone</u> , gray, grades to sand	
		70	<u>Shale</u> , as above	
4980	5000	10	<u>Siltstone</u> , gray	
		90	<u>Shale</u> , as above	
5000	5010	20	<u>Sand</u> , very fine to fine, well sort, sub-angular to round, calcareous, white, occasional black and variegated grains	
		20	<u>Siltstone</u> , gray, occasional variegated	
		60	<u>Shale</u> , variegated, gray, occasional very dark gray to black	
5010	5020	50	<u>Sand</u> , as above	
		50	<u>Shale</u> , as above	
5020	5030	20	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , gray	
		70	<u>Shale</u> , variegated and gray	
5030	5060	10	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 4780 to 4880
 _____ to _____

Well, Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4780	4786	10	<u>Sand</u> , as above, slightly calcareous, fair sort, silty	
		10	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	
4786	4790	10	<u>Sand</u> , medium to very fine, non-calcareous, variegated grain, sub-angular to sub-round, fair sort	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4790	4800	30	<u>Sand</u> , as above, including much unconsolidated sand grains	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4800	4805	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	<u>No Fluor</u>
4805	4810	30	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4810	4812	50	<u>Sand</u> , as above (mostly unconsolidated)	
		10	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4812	4820	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4820	4840	40	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
4840	4850	60	<u>Sand</u> , as above	
		40	<u>Shale</u> , as above	
4850	4860	50	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , light to dark gray	
		40	<u>Shale</u> , as above	
4860	4870	10	<u>Sand</u> , fine, white, occasional black grain, well sorted, calcareous	
		20	<u>Siltstone</u> , gray, occasional maroon, red, yellow	
		70	<u>Shale</u> , variegated, as above	
4870	4880	20	<u>Sand</u> , very fine to fine, white to light gray, non-calcareous, well sorted	
		30	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 4690 to 4780
 _____ to _____

Well, Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4690	4700	30	<u>Siltstone</u> , as above, grades to very fine, poorly sorted sand	
		70	<u>Shale</u> , as above	
4700	4710	30	<u>Sand</u> , medium to fine, white to buff, fair to poor sort, occasional with orange clay, Angular to sub-angular, variegated grain, non-calcareous, friable	
		20	<u>Clay</u> , soft, tan, non-calcareous	
		30	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
4710	4720	20	<u>Sand</u> , as above	
		20	<u>Clay</u> , soft, yellow to tan, non-calcareous	
		40	<u>Siltstone</u> , light to dark gray, occasional blue green, yellow	
		20	<u>Shale</u> , brown, yellow, purple, gray, dark gray	
4720	4730	40	<u>Sand</u> , very fine, white to light gray, hard, sub-angular to sub-round, calcareous, fair sort, silty	
		40	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
4730	4740	30	<u>Sand</u> , very fine to fine, friable, otherwise as above	
		40	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , variegated, including much dark gray shale	
4740	4750	20	<u>Sand</u> , very fine, hard, calcareous, white, fair sort, local dark green, rare variegated grain, silty	
		50	<u>Siltstone</u> , light to dark gray, occasional blue green, yellow	
		30	<u>Shale</u> , maroon, light to dark gray, dark brown, purple	
4750	4755	tr	<u>Sand</u> , very fine, well sorted	
		30	<u>Siltstone</u> , light to dark gray, gray green, grading to white, silty, very fine sand, non-calcareous to very slightly calcareous	
		70	<u>Shale</u> , light to dark gray, tan, brown, purple, yellow, blue green	
4755	4760	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4760	4765	20	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	
4765	4773	10	<u>Sandstone</u> , very fine, poorly sorted	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4773	4780	10	<u>Sand</u> , very fine to fine, well sort, variegated grain, non-calcareous, sub-angular to sub-round, friable	
		40	<u>Siltstone</u> , light to dark gray, green gray, non-calcareous	
		50	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 4500 to 4690
_____ to _____Well Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4500	4510	20	<u>Sand</u> , very fine to fine, white, slightly friable to hard, calcareous, variegated grain	
		40	<u>Siltstone</u> , light to dark gray, brown, purple, green gray	
		40	<u>Shale</u> , light to dark gray, brown, maroon, yellow, trace black shale	
4510	4520	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
		tr	<u>Sand</u> , as above	
4520	4540	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4540	4570	20	<u>Siltstone</u> , pale green to green gray, slightly calcareous	
		80	<u>Shale</u> , light to dark gray, brown, purple, maroon, yellow	
4570	4590	tr	<u>Sand</u> , very fine to fine, white to gray brown, sub-angular to sub-round, variegated grain, slightly calcareous, fair sort	
		20	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	
4590	4600	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4600	4610	20	<u>Siltstone</u> , green gray, gray, gray brown, yellow	
		80	<u>Shale</u> , light to dark gray, maroon, orange, gray green, yellow	
4610	4630	40	<u>Siltstone</u> , white, light to medium gray, gray green, brick red, very fine sandy	
		60	<u>Shale</u> , as above	
4640	4650	10	<u>Sand</u> , very fine, white, slightly variegated grain, calcareous, sub-round, well sorted	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above, trace very dark gray, laminated shale	
4650	4670	tr	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above, trace black shale	
4670	4680	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4680	4690	30	<u>Siltstone</u> , mostly white, sandy, calcareous, also light gray, occasional blue green	
		70	<u>Shale</u> , as above, trace dark green to black shale	

DITCH SAMPLES

Examined by Yeats 4400 to 4500
_____ to _____Well Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4400	4410	30	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4410	4415	40	<u>Sand</u> , very fine, white, sub-angular to sub-round, variegated grain, friable to hard, slightly calcareous	
		40	<u>Siltstone</u> , gray, yellow, maroon, brick red	
		20	<u>Shale</u> , variegated, trace brown, non-calcareous shale with ostracods	
4415	4420	30	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4420	4430	10	<u>Sand</u> , as above	
		60	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4430	4440	30	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4440	4450	10	<u>Sand</u> , as above	
		50	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4450	4460	30	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4460	4462	10	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
4462	4470	20	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4470	4480	10	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
4480	4490	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4490	4500	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 4270 to 4400
_____ to _____Well Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4270	4310	10	<u>Siltstone</u> , as above	
		90	<u>Shale</u> , brick red, purple, gray, occasional tan, yellow, brown	
4310	4320	10	<u>Siltstone</u> , white, occasional light to medium gray, almost a very fine sand	
		90	<u>Shale</u> , as above	
4320	4330	100	<u>Shale</u> , as above	
		tr	<u>Siltstone</u> , as above	
4330	4340	20	<u>Siltstone</u> , white to light gray	
		80	<u>Shale</u> , as above	
4340	4350	20	<u>Sand</u> , white to light gray, sub-angular to sub-round, calcareous, slightly friable, variegated grain	
		30	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above, including trace black shale	
4350	4356	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	<u>No Fluorescence</u>
4356	4358	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4358	4360	10	<u>Sand</u> , very fine, white, sub-angular to sub-round, variegated grain, hard slightly calcareous	
		30	<u>Siltstone</u> , gray, yellow, maroon, brick red	
		60	<u>Shale</u> , white, light gray to dark gray, brick red, brown, maroon, yellow, green gray, occasional calcareous	
4360	4370	60	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above, trace black shale	
		tr	<u>Sand</u> , as above	
		tr	<u>Limestone</u> , gray brown, sandy	
4370	4380	70	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4380	4390	20	<u>Sand</u> , white very fine, sub-angular to sub-round, variegated grain, friable to hard, slightly calcareous	
		30	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above, trace dark gray shale, soft, streak with black material and pyrite	
4390	4400	10	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , white, light to dark gray, red, maroon, yellow, brown	

DITCH SAMPLES

Examined by Yeats 4160 to 4270
_____ to _____Well, Southman Canyon 7
Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4160	4170	10	<u>Sand</u> , very fine, white, light gray, silty, variegated grain, calcareous, hard	
		40	<u>Siltstone</u> , light gray, medium gray, sandy	
		50	<u>Shale</u> , as above	
4170	4180	30	<u>Sand</u> , white to light gray, very fine to medium, variegated grain, moderately friable to hard, calcareous, sub-angular to sub-round	
		40	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4180	4190	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4190	4200	40	<u>Siltstone</u> , gray to medium gray, soft, occasional sandy, calcareous	
		50	<u>Shale</u> , light gray to maroon, soft, occasional calcareous	
		10	<u>Limestone</u> , light gray, very fine grain	
4200	4210	80	<u>Siltstone</u> , light gray to maroon, light gray grades to very fine sand, maroon grades to shale	
		20	<u>Shale</u> , as above	
4210	4220	50	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
		tr	<u>Sand</u> , white, very fine to fine, variegated grain, hard	
		tr	<u>Limestone</u> , white, sandy, oolite	
4220	4230	70	<u>Siltstone</u> , light gray to buff, medium gray, maroon	<u>No fluorescence</u>
		30	<u>Shale</u> , as above	
4230	4244	10	<u>Sand</u> , very fine to fine, white, moderately friable, biotite, variegated grain	
		50	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
4244	4248	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4248	4254	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
4254	4260	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
		tr	<u>Sand</u> , very fine, variegated grain, silty	
4260	4270	20	<u>Siltstone</u> , light gray, buff, medium gray, maroon	
		80	<u>Shale</u> , light gray to maroon, soft, occasional calcareous	
		tr	<u>Sand</u> , very fine, variegated grain, silty	

DITCH SAMPLES

Examined by Heath 4020 to 4080
Yeats 4080 to 4160

Well Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
4020	4030	40	<u>Sand</u> , as above, very silty and shaley in part, calcareous cement	
		30	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4030	4040	40	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4040	4050	60	<u>Sand</u> , white to medium gray, fine to very fine grading to siltstone, very hard, well cemented	
		30	<u>Siltstone</u> , as above	
		10	<u>Shale</u> , as above	
4050	4060	60	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		10	<u>Shale</u> , as above	
4060	4070	40	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , as above	
4070	4080	30	<u>Sand</u> , as above	
		50	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
4080	4090	30	<u>Sand</u> , very fine to fine, variegated grains, calcareous, white, hard, round, sub-angular	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , variegated, soft	
4090	4100	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
4100	4110	10	<u>Siltstone</u> , as above	
		90	<u>Shale</u> , as above	
4110	4120	30	<u>Siltstone</u> , principally gray	
		70	<u>Shale</u> as above	
4120	4130	40	<u>Siltstone</u> , principally gray	
		60	<u>Shale</u> , variegated, soft, in part calcareous	
4130	4150	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
		tr	<u>Sand</u> , very fine, variegated, silty	
4150	4160	50	<u>Siltstone</u> , variegated, silty, soft	
		50	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3900 to 4020
 _____ to _____

Well. Southman Canyon 7
 Field or Area _____

From	To	%	Shows Underlined	Samples Lagged
3900	3910	35	<u>Sand</u> , white, light green, gray, very fine, silty in part, calcareous	
		15	<u>Siltstone</u> , vericolored	
		50	<u>Shale</u> , variegated as above with some bentonite	
3910	3920	25	<u>Sand</u> , as above	
		15	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3920	3930	25	<u>Sand</u> , as above	
		15	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3930	3940	25	<u>Sand</u> , white, fine to very fine, calcareous, cement	
		25	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above, bentonite	
3940	3950	25	<u>Sand</u> , white, light green, as above	
		25	<u>Siltstone</u>	
		50	<u>Shale</u> , as above	
3950	3960	20	<u>Sand</u> , white, light green, very calcareous, well cemented, moderately sorted, silty	
		30	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
3960	3970	15	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , vericolored, very sandy in part	
		55	<u>Shale</u> , as above	
3970	3980	30	<u>Sand</u> , white, light green, gray, fine to very fine, grading to siltstone, hard, calcareous cement	
		30	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
3980	3990	50	<u>Sand</u> , as above	<u>No Fluorescence</u>
		25	<u>Siltstone</u> , as above	
		25	<u>Shale</u> , as above	
3990	4000	60	<u>Sand</u> , white light gray, lower medium to very fine, moderately sorted, hard, calcareous cement	
		30	<u>Siltstone</u> , gray and red, sandy	
		10	<u>Shale</u> , as above	
4000	4010	40	<u>Sand</u> , white, light gray, lower medium to very fine, moderate sorting, hard, calcareous cement	
		30	<u>Siltstone</u> , gray, red, sandy, hard, slightly calcareous	
		30	<u>Shale</u> , variegated, as above	
4010	4020	60	<u>Sand</u> , as above, grading to siltstone	
		20	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3830 to 3900
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3830	3840	15	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , as above	
		45	<u>Shale</u> , as above	
3840	3850	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3850	3860	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3860	3870		No Sample	
3870	3880	20	<u>Sand</u> , light green, grey, very fine, silty	
		10	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3880	3890	30	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above, bentonite	
3890	3900	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3720 to 3830
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3720	3730	10	<u>Sand</u> , light green, very fine, <u>non-calcareous</u> , <u>shaly</u>	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3730	3740	5	<u>Sand</u> , white, light green, as above	
		30	<u>Siltstone</u> , as above	
		65	<u>Shale</u> , as above	<u>No fluorescence</u>
3740	3750	20	<u>Sand</u> , white to green grey as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , variegated as above with some bentonite	
3750	3760	20	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above, with bentonite, balling up	
3760	3770	30	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
3770	3780	15	<u>Sand</u> , as above	
		15	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3780	3790	15	<u>Sand</u> , as above	
		15	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3790	3800	5	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		75	<u>Shale</u> , as above	
3800	3810	10	<u>Sand</u> , white-light green, very fine, calcareous as above	
		35	<u>Siltstone</u> , varicolored, red, grey, green and brown, sandy-very fine grains	
		55	<u>Shale</u> , variegated, as above, some bentonite	
3810	3820	10	<u>Sand</u> , as above	
		40	<u>Siltstone</u> , red, green, sand, as above	
		50	<u>Shale</u> , as above	
3820	3830	15	<u>Sand</u> , white, grey, green as above	
		40	<u>Siltstone</u> , as above	
		45	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3600 to 3720
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3600	3610	5	<u>Sand</u> , white, very fine, calcareous, as above	
		20	<u>Siltstone</u> , red, sandy, calcareous	
		75	<u>Shale</u> , varicolored	
3610	3620	35	<u>Sand</u> , white, light green, grey, fine to very fine, calcareous, varicolored grains.	
		20	<u>Siltstone</u> , red as above	<u>No fluorescence</u>
		45	<u>Shale</u> , as above	
3620	3630	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , red and light gray as above	
		70	<u>Shale</u> , as above	
3630	3640	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3640	3650	25	<u>Siltstone</u> , varicolored, as above	
		75	<u>Shale</u> , as above	
3650	3660	Tr	<u>Sand</u> , as above	
		15	<u>Siltstone</u> , as above	<u>No fluorescence</u>
		85	<u>Shale</u> , varicolored	
3660	3670	20	<u>Siltstone</u> , varicolored	
		80	<u>Shale</u> , as above	
3670	3680	5	<u>Sand</u> , white, very fine, as above	
		20	<u>Siltstone</u> , as above	
		75	<u>Shale</u> , as above	
3680	3690	5	<u>Sand</u> , white, light green, very fine, calcareous	
		25	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3690	3700	5	<u>Sand</u> , as above	
		25	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3700	3710	25	<u>Sand</u> , white to light green, fine to very fine, varicolored grains, red, orange, black, white, blue green and green, calcareous	
		20	<u>Siltstone</u> , red, and varicolored, light green, grey, tan, sandy.	
			<u>No Fluorescence</u>	
		55	<u>Shale</u> , varicolored, as above	
3710	3720	10	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above, some bentonite	

DITCH SAMPLES

Examined by Heath 3520 to 3569
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3520	3530	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3530	3540	30	<u>Sand</u> , white to light greenish grey, very fine, moderate sorting, sub-angular, varicolored grains, slightly calcareous to calcareous	
		20	<u>Siltstone</u> , as above	<u>No Fluorescence</u>
		50	<u>Shale</u> , as above	
3540	3550	40	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	<u>No fluorescence</u>
		40	<u>Shale</u> , as above	
3550	3560	70	<u>Sand</u> , white as above, fine to very fine, varicolored, sub-angular to sub rounded grains, well sorted, slightly calcareous	
		10	<u>Siltstone</u> , as above	<u>No fluorescence</u>
		20	<u>Shale</u> , as above	
3560	3569	80	<u>Sand</u> , white, very fine, as above	
		10	<u>Siltstone</u> , as above	<u>No fluorescence</u>
		10	<u>Shale</u> , as above	
3569	3600		Cored	

DITCH SAMPLES

Examined by Heath 3380 to _____
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3380	3390	100	<u>Sand</u> , <u>siltstone</u> and <u>shale</u> , as above	
3390	3400	5	<u>Sand</u> , very fine, well sorted, white, light green, and pink	
		20	<u>Siltstone</u> , red as above	<u>No fluorescence</u>
		75	<u>Shale</u> , varicolored as above	
3400	3410	5	<u>Sand</u> , white, light green, pink, very fine, moderate sorting	
		30	<u>Siltstone</u> , red, sand, very fine sand grains	
		65	<u>Shale</u> , varicolored, red, pink, purple, white, yellow, green, gray, brown	
3410	3420	50	<u>Siltstone</u> , red to yellow, very sandy	
		50	<u>Shale</u> , as above	
3420	3430	5	<u>Sand</u> , as above	<u>No fluorescence</u>
		50	<u>Siltstone</u> , red to yellow, as above	
		45	<u>Shale</u> , as above	
3430	3440	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3440	3450	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
3450	3460	40	<u>Siltstone</u> , red, yellow, sandy as above	
		60	<u>Shale</u> , varicolored as above	
3460	3470	40	<u>Siltstone</u> , varicolored	
		60	<u>Shale</u> , varicolored	<u>No fluorescence</u>
3470	3480	50	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
3480	3490	5	<u>Sand</u> , light-green to grey, very fine, shaly	
		45	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , as above	
3490	3500	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	
3500	3510	Tr	<u>Sand</u> , white-light grey, very fine, calcareous, varicolored grains	
		40	<u>Siltstone</u> , red to varicolored, calcareous, sandy	
		60	<u>Shale</u> , varicolored, as above, slightly calcareous in part	
3510	3520	40	<u>Siltstone</u> , as above	
		60	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3270 to 3380
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3270	3280	25	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above and red, sandy very fine	<u>Sand give very pale yellow fluorescence - no cut fluorescence</u>
		65	<u>Shale</u> , as above	
3280	3290	20	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , light grey and red, as above	<u>No Hydrocarbon fluorescence</u>
		70	<u>Shale</u> , varicolored as above	
3290	3300	5	<u>Sand</u> , as above	
		5	<u>Siltstone</u> , red, calcareous, sandy, very fine	<u>No fluorescence</u>
		90	<u>Shale</u> , as above	
3300	3310	40	<u>Sand</u> , very fine, varicolored grain	
		5	<u>Siltstone</u> , red as above	<u>No fluorescence</u>
		55	<u>Shale</u> , as above	
3310	3320	5	<u>Sand</u> , white as above	
		10	<u>Siltstone</u> , red as above	<u>No fluorescence</u>
		85	<u>Shale</u> , as above	
3320	3330	5	<u>Sand</u> , white, some red, very fine, varicolored grains	
		5	<u>Siltstone</u> , red as above	
		90	<u>Shale</u> , varicolored as above	
3330	3340	5	<u>Sand</u> , as above	
		5	<u>Siltstone</u> , red	<u>No fluorescence</u>
		5	<u>Siltstone</u> , light green, sandy	
		85	<u>Shale</u> , as above	
3340	3350	5	<u>Sand</u> , white, light green as above	
		10	<u>Siltstone</u> , red	
		85	<u>Shale</u> , as above	
3350	3360	5	<u>Sand</u> , as above	
		5	<u>Siltstone</u> , as above	<u>No fluorescence</u>
		90	<u>Shale</u> , as above	
3360	3370	5	<u>Siltstone</u> , green	
		5	<u>Siltstone</u> , red	
		90	<u>Shale</u> , as above	
3370	3380	2	<u>Sand</u> , as above	
		5	<u>Siltstone</u> , red	<u>No fluorescence</u>
		5	<u>Siltstone</u> , green	
		88	<u>Shale</u> , varicolored as above	

DITCH SAMPLES

Examined by Heath 3170 to 3270
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3170	3190		Poor returns	
		20	<u>Shale</u> , light-medium green	<u>Fluorescence as above</u>
		60	<u>Siltstone</u> , light green - sandy very fine	
		10	<u>Siltstone</u> , white	
		10	<u>Shale</u> , light brown	
3190	3200	10	<u>Shale</u> , brick red to purple	
		15	<u>Sand</u> , light green very fine as above	<u>Fluorescence as above</u>
		25	<u>Siltstone</u> , light gray green	
		20	<u>Shale</u> light gray green	
		30	<u>Shale</u> , light medium brown	
3200	3210	80	<u>Shale</u> , red to purple, calcareous	
		10	<u>Shale</u> , mustard yellow	<u>No Fluorescence</u>
		10	<u>Siltstone</u> light green	
3210	3230	10	<u>Sand</u> , as above	
		5	<u>Siltstone</u> , light green	
		5	<u>Shale</u> , light green	<u>5% dull orange fluorescence</u>
		5	<u>Shale</u> , mustard yellow as above	
		65	<u>Shale</u> , red-purple as above	
		10	<u>Shale</u> , gray-brown	
3230	3240	5	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	
		5	<u>Shale</u> , light green as above	
		5	<u>Shale</u> , yellow as above	
		10	<u>Shale</u> , gray brown as above	
		65	<u>Shale</u> , red to purple as above	
3240	3250	40	<u>Sand</u> , white - light green, very fine, varicolored grains - good sorting slightly calcareous	<u>2% light yellow fluorescence. No cut fluorescence</u>
		60	<u>Shale</u> , varicolored, red, purple, yellow, gray	
3250	3260	20	<u>Sand</u> , white-light green as above	
		10	<u>Siltstone</u> , light green, sandy very fine	<u>Fluorescence as above</u>
		70	<u>Shale</u> , varicolored as above	
3260	3270	20	<u>Sand</u> , as above	<u>Fluorescence as above</u>
		10	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Heath 3066 to 3170
 _____ to _____

Well Southman Canyon No. 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
3066	3070	10	<u>Limestone</u> , oolitic, as above	
		5	<u>Siltstone</u> , white - light gray	<u>40% fluorescence dull gold as above</u>
		10	<u>Shale</u> , light medium gray	
		75	<u>Shale</u> , light-medium brown	
3070	3080	15	<u>Limestone</u> , oolitic as above	
		15	<u>Shale</u> , light-medium gray	<u>Fluorescence as above</u>
		70	<u>Shale</u> light-medium brown	
3080	3090	100	<u>Shale</u> , light gray and green tan	<u>60% dull gold fluorescence. No cut fluorescence</u>
3090	3100	10	<u>Limestone</u> , oolitic as above	
		10	<u>Shale</u> , medium-dark brown	<u>40% dull gold fluorescence</u>
		80	<u>Shale</u> , light gray-green tan as above	
3100	3110	5	<u>Siltstone</u> , medium gray	
		5	<u>Limestone</u> , oolitic as above	<u>30% dull gold fluorescence. No cut fluorescence</u>
		30	<u>Shale</u> , light-medium brown	
		60	<u>Shale</u> , light gray	
3110	3120	40	<u>Shale</u> , white, non-calcareous	
		20	<u>Siltstone</u> , light green	<u>20% pale yellow fluorescence. No cut fluorescence</u>
		20	<u>Shale</u> , light green	
		20	<u>Shale</u> , light-medium brown	
3120	3130	50	<u>Siltstone</u> , light green - sandy, very fine	
		30	<u>Shale</u> , light green	<u>5% Orange fluorescence Pale yellow cut fluorescence</u>
		20	<u>Shale</u> , medium, brown	
3130	3140	10	<u>Sand</u> , light green, very fine, good sorting	
		50	<u>Siltstone</u> , light gray green	<u>5% Orange fluorescence</u>
		20	<u>Shale</u> , light green	
		20	<u>Shale</u> , light-medium brown	
3140	3170		Poor returns	
		30	<u>Sand</u> , white - light green, very fine as above	<u>5% fluorescence as above light yellow cut fluorescence</u>
		30	<u>Siltstone</u> , light green	
		10	<u>Shale</u> , light green	
		30	<u>Shale</u> , light-medium brown	

DITCH SAMPLES

Yeats
Examined by Heath 2950 to 3066
_____ to _____

Well Southman Canyon 7
Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2950	2970		No Sample	
2970	2980	10	<u>Sand</u> , as above	<u>Trace yellow fluorescence, milky cut fluorescence, dark straw cut</u>
		20	<u>Shale</u> , grey, as above	
		70	<u>Shale</u> , light-dark brown, very dark brown, black. Black shale wetted with difficulty	
2980	2990	10	<u>Limestone</u> , tan-grey, ostracods	<u>Trace yellow fluorescence, very pale milky cut fluorescence</u>
		10	<u>Sand</u> , as above	
		10	<u>Shale</u> , grey, as above	
		70	<u>Shale</u> , brown, as above	
2990	3000		No Sample	
3000	3010	20	<u>Siltstone</u> , medium gray, shaly	
		20	<u>Shale</u> , gray as above	
		60	<u>Shale</u> , brown, as above	<u>20% tan fluorescence, milky yellow cut fluorescence</u>
3010	3020	20	<u>Siltstone</u> , medium gray as above	
		20	<u>Shale</u> , gray as above	<u>Fluorescence as above</u>
		60	<u>Shale</u> , brown as above	
3020	3030	10	<u>Siltstone</u> , light gray white, calcareous	
		20	<u>Shale</u> , gray non-calcareous	<u>30% tan fluorescence, milky cut fluorescence</u>
		70	<u>Shale</u> , light to dark brown	
3030	3040	10	<u>Limestone</u> , oolitic, ostracods	
		10	<u>Siltstone</u> , as above	<u>Fluorescence, as above</u>
		10	<u>Shale</u> , light gray, as above	
		70	<u>Shale</u> , brown, as above	
3040	3050	10	<u>Siltstone</u> as above	
		20	<u>Shale</u> , light gray, calcareous	<u>50% fluorescence as above</u>
		60	<u>Shale</u> , brown as above	
		10	<u>Limestone</u> , oolitic as above	
3050	3066	NS	<u>Correction</u> of depth after measuring out.	

DITCH SAMPLES

Examined by Yeats 2850 to 2950
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2850	2860	30	<u>Siltstone</u> , shaly, grades to very fine sand, very light grey - medium grey, calcareous, micaceous	
		20	<u>Limestone</u> , light-medium brown, occasionally grey, ostracods, massive, pyrite	
		10	<u>Shale</u> , grey, non calcareous, micaceous	
		40	<u>Shale</u> , brown, as above	<u>Trace fluorescence as above, milky cut fluorescence, pale straw cut</u>
		Tr	<u>Gilsonite</u>	
2860	2870	20	<u>Siltstone</u> , as above	
		50	<u>Shale</u> , grey, micaceous, massive, occasionally calcareous	
			<u>Fluorescence as above</u>	
		20	<u>Shale</u> , medium-dark brown, trace gilsonite	
		10	<u>Limestone</u> , as above	
2870	2880	10	<u>Sand</u> , very fine, variegated, white	
		40	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , medium-brown	
		20	<u>Shale</u> , grey	
		10	<u>Limestone</u> , oolitic-algal-massive	
2880	2900	70	<u>Gilsonite</u> , very dark brown - black	
		20	<u>Shale</u> , light grey-dark brown	<u>Milky cut fluorescence</u>
		10	<u>Siltstone</u> , as above, grades to very fine sand	
2900	2910	100	<u>Shale</u> , light brown - very dark brown. About 50% very dark brown calcareous, occasional pyrite. Much gilsonite	
2910	2920	100	<u>Shale</u> , as above, with 20% grey - light grey shale, calcareous	
2920	2930	20	<u>Sand</u> , white very fine, silty, variegated, round and sub-angular, fair sorting	
		20	<u>Siltstone</u> , medium grey, shaly, micaceous, quartz	
		60	<u>Shale</u> , light grey	
		Tr	<u>Limestone</u> , brown	
2930	2940	40	<u>Sandstone</u> , grading to light grey siltstone, calcareous	
		40	<u>Shale</u> , light-dark grey	
		20	<u>Shale</u> , light-dark brown	
2940	2950	20	<u>Sand</u> , white-light grey, silty, quartzose, variegated	
		30	<u>Shale</u> , grey, as above	
		50	<u>Shale</u> , brown, as above	
		Tr	<u>Limestone</u> , brown	

DITCH SAMPLES

Examined by Yeats 2760 to 2850
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2760	2770	10	<u>Sand</u> , as above, occasional ostracods, <u>No fluorescence</u>	
		10	<u>Shale</u> , grey, platy, soft <u>Trace brown fluorescence</u>	
		80	<u>Shale</u> , brown, as above, occasional ostracods	
2770	2780	20	<u>Sand</u> , as above, <u>No fluorescence</u>	
		20	<u>Siltstone</u> , calcareous, light grey	<u>Trace brown fluorescence, milky cut fluorescence</u>
		50	<u>Shale</u> , brown, as above	
		10	<u>Shale</u> , grey, as above	
2780	2790	10	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	<u>Trace yellow fluorescence</u>
		20	<u>Shale</u> , grey as above	
		60	<u>Shale</u> , brown, as above	
2790	2800	50	<u>Shale</u> , light brown, medium brown, dark brown, black, wetted with difficulty	<u>Fluorescence as above</u>
		50	<u>Shale</u> , grey as above	
2800	2810	10	<u>Siltstone</u> , light grey, calcareous	
		50	<u>Shale</u> , grey as above	
		40	<u>Shale</u> , brown, as above	
2810	2820	30	<u>Siltstone</u> , grey-white, calcareous	
		10	<u>Limestone</u> , cream-brown, massive-algal	
		20	<u>Shale</u> , grey as above	
		40	<u>Shale</u> , brown, as above	
2820	2830	70	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , brown, as above	
		10	<u>Limestone</u> , as above, with ostracods	
2830	2840	50	<u>Sand</u> , white, very fine, silty, subangular-sub rounded, variegated, slightly calcareous, firm, poorly sorted	
		30	<u>Siltstone</u> , as above	
		10	<u>Shale</u> , grey as above	
		10	<u>Shale</u> , brown as above	
2840	2850	20	<u>Sand</u> , as above	
		40	<u>Siltstone</u> as above	<u>Trace white-tan fluorescence</u>
		20	<u>Shale</u> , grey as above	
		20	<u>Shale</u> , brown as above	

DITCH SAMPLES

Examined by Yeats 2650 to 2760
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2650	2660	100	<u>Shale</u> , pale grey brown-medium brown, occasional dark brown, soft, occasionally hard, non-calcareous, micaceous <u>Milky white cut fluorescence, pale straw cut</u>	
2660	2670	100	<u>Shale</u> , as above, extending to light grey. Mostly soft, calcareous, micaceous <u>Trace yellow fluorescence, very pale-milky cut fluorescence</u>	
2670	2680	100	<u>Shale</u> , as above, occasionally laminated, trace pyrite <u>Trace yellow fluorescence</u>	
2680	2690	100	<u>Shale</u> , as above <u>40% dull brown fluorescence, trace yellow fluorescence</u>	
2690	2700	90	<u>Shale</u> , less calcareous, otherwise as above	
		10	<u>Limestone</u> , grey, with ostracods <u>10% fluorescence as above</u>	
2700	2710	80	<u>Shale</u> , light grey brown-medium brown, in part dolomitic <u>30% tan-dull brown fluorescence, very pale milky cut fluorescence</u>	
		20	<u>Dolomite</u> , light-medium brown, massive, occasional ostracods	
2710	2720	70	<u>Shale</u> , brown, as above, fissile	
		20	<u>Shale</u> , grey, calcareous, soft <u>20% fluorescence as above, cut fluorescence as above</u>	
		10	<u>Dolomite</u> , as above	
2720	2730	90	<u>Shale</u> , brown, as above, occasionally with ostracods	
		10	<u>Dolomite</u> , as above <u>Fluorescence as above, bright milky cut fluorescence, straw cut</u>	
2730	2740	10	<u>Sand</u> , fine-very fine, white-buff, occasional clasts medium and coarse, round-subangular, poorly sorted, slightly calcareous, variegated, biotite, <u>no fluorescence</u>	
		20	<u>Siltstone</u> , light brown grey, calcareous	
		10	<u>Limestone</u> , ostracod coquina <u>10% fluorescence as above</u>	
2740	2750	40	<u>Siltstone</u> , as above	
		10	<u>Limestone</u> , as above	
		40	<u>Shale</u> , brown, as above <u>Trace fluorescence as above</u>	
		10	<u>Shale</u> , grey, soft	
2750	2760	20	<u>Sand</u> , white-buff, very fine-fine, fair-poorly sorted, subangular, variegated slightly calcareous, <u>no fluorescence</u>	
		10	<u>Siltstone</u> , as above <u>Trace brown fluorescence, milky cut fluorescence, pale straw cut</u>	
		70	<u>Shale</u> , brown, as above	

DITCH SAMPLES

Examined by Yeats 2510 to 2650
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2510	2520	100	<u>Shale</u> , light grey - light brown, occasionally medium brown	
2520	2530	100	<u>Shale</u> , light grey - occasionally light brown grey , soft calcareous locally micaceous	
2530	2540	100	<u>Shale</u> , as above, mostly light grey, some light brown grey	
2540	2560	90	<u>Shale</u> , light grey, soft, calcareous	
		10	<u>Siltstone</u> , light grey, shaly	
2560	2570	100	<u>Shale</u> , light grey-medium grey, occasionally light brown-medium brown . Soft, calcareous, micaceous. <u>10% dull brown fluorescence, trace brown yellow-tan fluorescence milky cut fluorescence</u>	
2570	2580	100	<u>Shale</u> , light grey - light brown grey, silty, micaceous, calcareous <u>20% dull brown fluorescence, trace tan fluorescence (limestone), milky cut fluorescence</u>	
2580	2590	60	<u>Siltstone</u> , white-light grey, biotite, arkosic, calcareous, hard, shaly	
		30	<u>Shale</u> , as above <u>5% dull brown fluorescence, trace yellow fluorescence, very pale milky cut fluorescence</u>	
		10	<u>Limestone</u> , ostracods, medium grey	
2590	2600	60	<u>Siltstone</u> , as above, occasionally very finely sandy, variegated <u>Trace light tan-brown fluorescence, very pale milky cut fluorescence</u>	
		40	<u>Shale</u> , as above	
2600	2620	80	<u>Sand</u> , white, very fine grained, fair sorting, arkosic, calcareous, variegated, rounded grains	
		10	<u>Siltstone</u> , as above <u>Trace fluorescence, as above, milky cut fluorescence</u>	
		10	<u>Shale</u> , as above	
2620	2630	90	<u>Sand</u> , as above, mottled brown	
		10	<u>Shale</u> , light grey, platy	
2630	2640	10	<u>Sand</u> , as above <u>30% dull brown fluorescence, very pale milky cut fluorescence</u>	
		90	<u>Shale</u> , light brown - medium brown, occasionally red brown, calcareous, soft	
2640	2650	Tr	<u>Sandy Siltstone</u> , white, calcareous ostracods <u>60% fluorescence as above, cut fluorescence as above</u>	
		100	<u>Shale</u> , light brown - dark brown, occasionally grey, soft-hard, calcareous-dolomitic	

DITCH SAMPLES

Examined by Yeats 2380 to 2510
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2380	2390	100	<u>Shale</u> , limy, light grey, occasional light grey brown, occasionally non-limy. <u>Pale milky cut fluorescence</u>	
2390	2400	100	<u>Shale</u> , light grey - light grey brown, occasional tan-dark brown, limy-dolomite <u>60% dull brown fluorescence, very pale milky cut fluorescence</u>	
2400	2410	100	<u>Shale</u> , light grey-tan, occasional dark brown, limy-dolomite <u>50% fluorescence as above, cut fluorescence as above</u>	
2410	2420	30	<u>Siltstone</u> , quartz, arkosic, very light grey-light grey brown, fair sorting	
		70	<u>Shale</u> , as above <u>60% dull brown fluorescence, trace bright yellow fluorescence (siltstone), cut fluorescence as above</u>	
2420	2430	20	<u>Siltstone</u> , as above <u>Fluorescence as above, pale straw cut, bright milky cut fluorescence</u>	
		80	<u>Shale</u> , light grey-black. About 10% is black - very dark red brown, dolomitic	
2430	2460	20	<u>Sand</u> , very fine grained, light grey-white, calcareous, well sorted, well rounded biotite, feldspathic, slightly variegated	
		40	<u>Siltstone</u> , as above <u>5% dull brown fluorescence (shale) and dull buff fluorescence (shale). Trace yellow-white fluorescence (siltstone and shale)</u>	
		40	<u>Shale</u> , light grey - light grey brown <u>Pale milky cut fluorescence</u>	
2460	2470	20	<u>Sand</u> , as above <u>Trace fluorescence, as above, very pale milky cut fluorescence</u>	
		40	<u>Siltstone</u> , as above	
		40	<u>Shale</u> , as above	
2470	2480	10	<u>Sand</u> , as above	
		30	<u>Siltstone</u> , as above <u>5% fluorescence as above, milky cut fluorescence</u>	
		60	<u>Shale</u> , as above	
2480	2490	30	<u>Siltstone</u> , as above <u>10% fluorescence as above, milky cut fluorescence</u>	
		70	<u>Shale</u> , as above	
		Tr	<u>Dolomite</u> , ostracod coquina, dark grey - cream (limestone)	
2490	2500	100	<u>Shale</u> , light grey - medium brown, soft-hard, calcareous grades to dark brown	
		Tr	<u>Siltstone</u> , as above	
		Tr	<u>Dolomite</u> , as above <u>Trace yellow fluorescence, milky cut fluorescence</u>	
2500	2510	100	<u>Shale</u> , light-dark brown, occasionally brown black, occasionally grey <u>Milky cut fluorescence</u>	

DITCH SAMPLES

Examined by Yeats 2250 to 2380
 to

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2250	2260	90	<u>Shale</u> , as above	<u>50% fluorescence as above, trace light yellow fluorescence. Sand does not fluores</u>
		10	<u>Sand</u> , very fine grained, white, arkosic, grading to white siltstone. Occasional variegated grains. (buff, brown, green). Calcareous, fair sorting	
2260	2270	60	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , light grey, micaceous	<u>Trace dull brown fluorescence</u>
		20	<u>Shale</u> , as above	
2270	2280	40	<u>Sand</u> , as above	
		20	<u>Siltstone</u> , as above	<u>10% brown fluorescence, milky cut fluorescence</u>
		40	<u>Shale</u> , as above	
2280	2290	10	<u>Sand</u> as above	
		90	<u>Shale</u> , as above	<u>20% brown fluorescence</u>
		Tr	<u>Siltstone</u> , as above	
2290	2300	20	<u>Sand</u> and light grey siltstone, as above	
		80	<u>Shale</u> , as above	<u>20% brown fluorescence, milky cut fluorescence</u>
		Tr.	<u>Limestone</u> , algal, ostracods	
2300	2310		No sample	
2310	2340	100	<u>Siltstone</u> , grey, grading from almost a shale to rare very fine grained sand, micaceous, calcareous	
2340	2350	20	<u>Sand</u> , very fine grained <u>white-light grey, arkosic, well rounded, well sorted, variegated, friable, calcareous</u>	
		40	<u>Siltstone</u> , as above	<u>20% dull brown fluorescence (Shale), trace bright cream - white fluorescence (siltstone)</u>
		40	<u>Shale</u> , light grey, occasional light-dark brown	<u>Pale milky cut fluorescence</u>
2350	2360	90	<u>Siltstone</u> , grey, quartz, well sorted, grades to very fine sand and silty shale	<u>5% bright white fluorescence (limestone).</u> <u>Trace dull brown fluorescence</u>
		10	<u>Limestone</u> , algal, cream	<u>Pale straw cut, pale milky cut fluorescence</u>
2360	2370	90	<u>Siltstone</u> , as above, shaly	<u>10% white fluorescence (limestone) and yellow fluorescence (limy, shaly siltstone).</u> <u>Pale straw cut, milky cut fluorescence</u>
		10	<u>Limestone</u> , cream, massive	
2370	2380	10	<u>Siltstone</u> , as above	<u>20% brown yellow fluorescence (limy shale), milky cut fluorescence</u>
		90	<u>Shale</u> , limy, light grey - light grey brown, soft, grades to limestone	

DITCH SAMPLES

Examined by Yeats 2120 to 2250
 to

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
2120	2130	10	<u>Siltstone</u> , as above	<u>10% fluorescence, pale milky cut fluorescence</u>
		80	<u>Shale</u> , as above	
		10	<u>Limestone</u> , as above, but with small stubby plates (algal?) in addition to ostracods	
2130	2150	20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	<u>Fluorescence and cut fluorescence as above</u>
		10	<u>Limestone</u> , as above	
2150	2160	10	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	<u>Fluorescence and cut fluorescence as above, pale straw cut</u>
		10	<u>Limestone</u> , as above	
2160	2170	20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	<u>Fluorescence as above, very pale milky cut fluorescence</u>
		10	<u>Limestone</u> , cream, massive-oolitic, and grey, ostracod, dolomitic	
2170	2180	10	<u>Siltstone</u> , as above	
		80	<u>Shale</u> , as above	<u>Fluorescence as above, milky cut fluorescence</u>
		10	<u>Limestone</u> , cream, massive	
		Tr	<u>Sand</u> , quartz, fine grained-very fine grained	
2180	2200	20	<u>Siltstone</u> , as above	<u>10% fluorescence as above, cut fluorescence as above</u>
		70	<u>Shale</u> , as above	
		10	<u>Limestone</u> , cream, massive-algal.	<u>Trace heavy brown oil stain on algal limestone, with yellow fluorescence</u>
2200	2210	30	<u>Siltstone</u> , as above	<u>Fluorescence and cut fluorescence as above</u>
		60	<u>Shale</u> , as above	
		10	<u>Limestone</u> , as above	<u>Trace oil stain as above</u>
2210	2220	20	<u>Siltstone</u> , light grey-medium grey	<u>20% fluorescence, as above, light tan dull brown; milky cut fluorescence</u>
		60	<u>Shale</u> , as above	
		20	<u>Limestone</u> , cream, massive-algal	
2220	2230	100	<u>Shale</u> , light grey - light brown, calcareous, massive - laminated	
			<u>80% very dull brown fluorescence</u>	
2230	2240	100	<u>Shale</u> , white-medium brown, soft-hard, calcareous. Very little grey shale	
			<u>90% fluorescence, as above</u>	
2240	2250	100	<u>Shale</u> , mostly grey, occasionally light brown	<u>30% dull brown fluorescence as above</u>

DITCH SAMPLES

Examined by Yeats 1980 to 2120
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1980	1990	10	<u>Siltstone</u> , as above	<u>10% fluorescence as above, very pale milky cut fluorescence</u>
		90	<u>Shale</u> , buff, grey, light brown, dark brown, dark red brown, calcareous	
1990	2000	30	<u>Dolomite</u> , ostracod coquina, white-dark grey	
		70	<u>Shale</u> , light grey-dark brown, silty. Grey shale is micaceous	
			<u>30% butterscotch fluorescence, milky cut fluorescence</u>	
2000	2010	10	<u>Dolomite</u> , as above	
		90	<u>Shale</u> , light grey, occasional dark brown, silty, micaceous	
			<u>Trace fluorescence as above</u>	
2010	2020	100	<u>Shale</u> , light grey, tan, dark brown, dark red brown, occasional micaceous calcareous	<u>10% fluorescence, light tan-brown, milky cut fluorescence</u>
2020	2030	90	<u>Shale</u> , as above	<u>20% fluorescence, as above, milky cut fluorescence</u>
		10	<u>Sand</u> , very fine grained, with round, fair sorting, non-calcareous, white with few dark grains.	
2030	2040	80	<u>Shale</u> , as above	
		10	<u>Sand</u> , as above, white-buff, biotite	<u>Fluorescence as above, very pale milky cut fluorescence</u>
		10	<u>Limestone</u> or dolomite, white-buff	
2040	2050	100	<u>Shale</u> , brown - very dark brown, platy-laminated, dolomite	
			<u>Trace fluorescence as above, cut fluorescence as above</u>	
2050	2060	30	<u>Siltstone</u> , quartzose, well sorted, white-light grey	
		70	<u>Shale</u> , light grey - tan, occasionally dark brown, massive - laminated	
			<u>10% fluorescence as above, milky cut fluorescence</u>	
		Tr	<u>Limestone</u> , white-buff, massive	
2060	2070	30	<u>Siltstone</u> as above	
		60	<u>Shale</u> , as above	<u>10% fluorescence as above, cut fluorescence as above</u>
		10	<u>Limestone</u> , as above	
2070	2090	20	<u>Siltstone</u> , white, light grey, buff. Buff siltstone is calcareous	
		70	<u>Shale</u> , as above	<u>10% fluorescence as above, cut fluorescence as above</u>
		10	<u>Limestone</u> , as above	
2090	2120	20	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	
		10	<u>Limestone</u> , massive - oolitic and ostracod, dolomitic	
			<u>5% fluorescence as above, pale milky cut fluorescence</u>	
		Tr	<u>Sand</u> , fine-very fine grained, arkosic, biotite hbl, variegated (pink grain), fair sorting, sub-angular to sub-rounded moderately friable, white-buff. Buff sand grain at 2100-10 fluorescent	<u>tan, milky cut fluorescence</u>

All white at 2110-20

DITCH SAMPLES

Examined by Yeats 1820 to 1980
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1820	1830	10	<u>Limestone</u> , mostly massive	
		80	<u>Siltstone</u> , as above	<u>Fluorescence as above, pale milky cut fluorescence</u>
		10	<u>Shale</u> , as above	
1830	1840	10	<u>Limestone</u> , as above	
		60	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above	
		10	<u>Sand</u> , very fine grained, white - very pale grey, quartzose, well sorted, well rounded feldspathic, biotite, calcareous, friable	
1840	1880	90	<u>Sand</u> , as above	
		10	<u>Siltstone</u> , as above	<u>No fluorescence</u>
1880	1890	40	<u>Sand</u> , as above	
		50	<u>Siltstone</u> , as above	<u>5% fluorescence</u>
		10	<u>Shale</u> , light buff - dark brown	
1890	1900	30	<u>Sand</u> , as above	
		60	<u>Siltstone</u> , as above	<u>5% fluorescence, as above, milky cut fluorescence</u>
		10	<u>Shale</u> , as above	
1900	1910		No sample	
1910	1920	70	<u>Siltstone</u> , very fine grained light grey, quartzose, well sorted with mafics, calcareous	
		30	<u>Siltstone</u> , white, quartzose, well sorted, calcareous	
1920	1930	90	<u>Siltstone</u> , grey, as above	
		10	<u>Siltstone</u> , white, as above	
1930	1940	80	<u>Siltstone</u> , grey - light brown, calcareous	
		10	<u>Siltstone</u> , white, as above	<u>Tr. yellow-tan fluorescence</u>
		10	<u>Shale</u> , grey-white, soft, calcareous	
1940	1960	70	<u>Siltstone</u> , grey-light brown, as above	
		20	<u>Siltstone</u> , white, as above	
		10	<u>Shale</u> , as above	<u>Fluorescence as above</u>
		Tr	<u>Limestone</u> , white very fine grain, soft	
1960	1970	40	<u>Siltstone</u> , white, almost a very fine grained sand. Grades to grey siltstone	
			<u>5% fluorescence, as above, very pale milky cut fluorescence</u>	
		60	<u>Shale</u> , grey, occasional light brown, white, dark brown. Grades to grey siltstone	
1970	1980	30	<u>Siltstone</u> , as above	<u>10% fluorescence, as above</u>
		70	<u>Shale</u> , as above	

DITCH SAMPLES

Examined by Yeats 1650 to 1820
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1650	1660		No sample	
1660	1670	30	<u>Limestone</u> , buff - white, oolitic-massive, <u>occasional dark brown heavy tar stain</u>	
		20	<u>Siltstone</u> , medium grey - very light grey <u>20% fluorescence as above, pale straw cut, milky cut fluorescence</u>	
		50	<u>Shale</u> , light grey-brown, some pale grey blue	
1670	1690	40	<u>Limestone</u> , buff - cream, oolitic - massive (oolitic fluorescence) <u>30% fluorescence yellow-tan, milky cut fluorescence</u>	
		40	<u>Siltstone</u> , and sandstone, light grey - white, quartzose, biotite, feldspathic, calcareous, sandstone is friable. No fluorescence	
		20	<u>Shale</u> , as above	
1690	1710	20	<u>Limestone</u> , as above	
		40	<u>Siltstone</u> , as above <u>20% fluorescence, yellow-tan-dark brown, pale straw cut, milky cut fluorescence</u>	
		40	<u>Shale</u> , as above	
1710	1720	20	<u>Limestone</u> , mainly oolitic	
		40	<u>Siltstone</u> , as above <u>Fluorescence as above, pale milky cut fluorescence</u>	
		40	<u>Shale</u> , as above	
1720	1730	20	<u>Limestone</u> , oolitic - massive	
		40	<u>Siltstone</u> , as above <u>Fluorescence as above, milky cut fluorescence</u>	
		40	<u>Shale</u> , as above	
1730	1750	10	<u>Limestone</u> , mainly oolitic	
		40	<u>Siltstone</u> , as above <u>Fluorescence as above, pale straw cut, pale milky cut fluorescence</u>	
		50	<u>Shale</u> , light grey-brown, calcareous - dolomitic, hard-soft	
1750	1780	70	<u>Siltstone</u> , quartzose, biotite, hbl'd, feldspathic, friable, well sorted	
		30	<u>Shale</u> , light grey - dark brown, calcareous-dolomitic, massive-laminated, occasional pyrite <u>10% fluorescence as above, milky cut fluorescence</u>	
1780	1790	80	<u>Siltstone</u> , as above	
		20	<u>Shale</u> , as above <u>Shows as above</u>	
1790	1800	60	<u>Limestone</u> , oolitic-massive, buff-grey. Oolites vary from large buff to small black in white matrix	
		30	<u>Siltstone</u> , as above	
		10	<u>Shale</u> , as above <u>5% fluorescence, as above</u>	
1800	1810	50	<u>Limestone</u> , as above	
		40	<u>Siltstone</u> , as above <u>Fluorescence, as above, pale milky cut fluorescence</u>	
		10	<u>Shale</u> , as above	
1810	1820	60	<u>Limestone</u> , as above	
		30	<u>Siltstone</u> , as above	
		10	<u>Shale</u> , as above <u>Fluorescence, as above</u>	

DITCH SAMPLES

Examined by Yeats 1500 to 1650
 to

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1500	1520	50	<u>Shale</u> , as above	<u>10% fluorescent, as above, milky cut fluorescence</u>
		50	<u>Siltstone</u> , as above	
1520	1540	100	<u>Shale</u> , as above, principally light grey, massive dolomitic shale with fine pale blue laminae.	<u>20% fluorescence as above, very pale white cut fluorescence</u>
1540	1550	70	<u>Shale</u> , as above	
		10	<u>Siltstone</u> , very pale grey, salt and pepper	<u>30% fluorescence as above, milky cut fluorescence</u>
		20	<u>Tuff</u> , pale tan, granular, with biotite, feldspar and analcite	
1550	1560	80	<u>Shale</u> , as above	<u>20% fluorescence as above, pale straw cut., bright milky cut fluorescence</u>
		20	<u>Tuff</u> , as above	
1560	1570	70	<u>Shale</u> , as above	
		10	<u>Siltstone</u> , as above	<u>20% fluorescence, as above, cut and cut fluorescence as above</u>
		20	<u>Tuff</u> , as above	
1570	1580	100	<u>Siltstone</u> , light grey, hard, calcareous, grading to very fine sandstone, moderately friable, biotite and quartzite, well sorted, calcareous	<u>milky cut fluorescence</u>
1580	1590	70	<u>Siltstone</u> , as above	
		30	<u>Shale</u> , massive - platy, grey-brown, calcareous, hard	<u>10% fluorescence, tan, occasional bright yellow</u>
1590	1600	90	<u>Siltstone</u> , as above, but not grading to sandstone	
		10	<u>Shale</u> , as above	
1600	1610	10	<u>Siltstone</u> , as above	<u>40% fluorescence, bright yellow - dull brown, very pale milky cut fluorescence</u>
		90	<u>Shale</u> , as above	
1610	1620	50	<u>Siltstone</u> , as 1570-80 above (grades to very fine sandstone)	
		50	<u>Shale</u> , as above	<u>30% fluorescence, as above</u>
1620	1630	30	<u>Siltstone</u> , as above	
		70	<u>Shale</u> , as above	<u>20% fluorescence, as above</u>
1630	1650	40	<u>Siltstone</u> , not grading to sandstone. Non-calcareous, mostly quartz green	
		60	<u>Shale</u> , as above	<u>1630-40, 30% fluorescence, light yellow-brown, pale milky cut fluorescence 1640-50 fluorescence as above, straw cut, bright cream cut fluorescence</u>
		Tr	<u>Limestone</u> , oolitic, light grey	

DITCH SAMPLES

Examined by Yeats 1340 to 1500
 to

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1340	1350	60	<u>Shale</u> , as above	<u>Fluorescent as above, very pale milky yellow cut fluorescence</u>
		40	<u>Siltstone</u> , as above	
1350	1360	40	<u>Shale</u> as above	<u>50% fluorescence, as above, cut fluorescence as above</u>
		60	<u>Siltstone</u> , as above	
1360	1370	60	<u>Shale</u> , very light grey - dark brown, occasional dark red brown. Occasionally laminated, calcareous	<u>80% fluorescence as above</u>
		40	<u>Siltstone</u> , as above	
1370	1380	40	<u>Shale</u> , as above interbedded with siltstone	
		60	<u>Siltstone</u> , as above	<u>Fluorescence, as above, pale milky yellow cut fluorescence</u>
1380	1390	90	<u>Shale</u> , as above	
		10	<u>Siltstone</u> , as above	<u>80% fluorescence, bright yellow-dull brown, mostly dull brown, pale milky cut fluorescence</u>
1390	1400	100	<u>Shale</u> , light grey-medium brown, occasionally dark brown and dark red brown, massive laminated, calcareous dolomite	
		Tr	<u>Siltstone</u> and Tuff, as above	<u>90% fluorescence as above, cut fluorescence as above</u>
1400	1410	80	<u>Shale</u> , as above	
		20	<u>Tuff</u> , white massive-very fine grain, pyrite after biotite and hbl, occasionally calcareous	<u>80% fluorescence as above, very pale milky cut fluorescence</u>
1410	1420	80	<u>Shale</u> , as above	
		10	<u>Tuff</u> , as above	<u>Fluorescence and cut fluorescence, as above</u>
		10	<u>Siltstone</u> , as above	
1420	1440	100	<u>Shale</u> , as above, but more dolomitic.	<u>40% fluorescence, yellow-brown, milky cut fluorescence</u>
1440	1450	90	<u>Shale</u> , as above,	<u>50% fluorescence as above and cut fluorescence as above</u>
		10	<u>Siltstone</u> , light grey, salt and pepper, quartzose, hard	
1450	1460	100	<u>Shale</u> , as above	<u>Fluorescence and cut fluorescence as above</u>
		Tr	<u>Siltstone</u> , as above	
1460	1480	90	<u>Shale</u> , light grey-brown, dolomite, platy, laminated, occasionally dark brown and bluish grey	
		10	<u>Tuff</u> , fine grain - granular, white, calcareous	<u>30% fluorescent, bright yellow-tan, milky cut fluorescence</u>
1480	1500	30	<u>Shale</u> , as above	<u>5% fluorescence, as above</u>
		70	<u>Siltstone</u> , light grey, quartzose, pyrite, slightly calcareous, non-fluorescent	

DITCH SAMPLES

Examined by Yeats 1170 to 1340
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1170	1180	40	<u>Shale</u> , as above	<u>40% fluorescence as above, pale straw cut, milky cut fluorescence</u>
		60	<u>Tuff</u> , as above	
1180	1190	60	<u>Shale</u> , as above	<u>60 % fluorescence, cut and cut fluorescence, as above</u>
		40	<u>Tuff</u> , as above	
1190	1200	80	<u>Shale</u> , very light grey - dark red brown, massive-laminate. occasionally calcareous	<u>60% fluorescence, cut and cut fluorescence, as above</u>
		20	<u>Tuff</u> , very light grey, pyrite (pseudomorphs after biotite and hbl.)	
1200	1210	90	<u>Shale</u> , as above	<u>30% fluorescence, cut and cut fluorescence, as above</u>
		10	<u>Tuff</u> , as above	
1210	1220	80	<u>Shale</u> , as above	<u>Fluorescence cut and cut fluorescence as above</u>
		20	<u>Tuff</u> , as above, occasional silt size granules	
1220	1240	70	<u>Shale</u> , as above	<u>40% fluorescence, as above, straw cut, milky yellow cut fluorescence, gas bleeds from fractures</u>
		30	<u>Tuff</u> , as above	
1240	1250	80	<u>Shale</u> , as above	<u>Fluorescence as above, pale straw cut, milky cut fluorescence, gas bleeds as above</u>
		20	<u>Tuff</u> , as above	
1250	1255	70	<u>Shale</u> , as above	<u>30% fluorescence, as above, straw cut, milky yellow cut fluorescence, gas bleeds as above</u>
		30	<u>Tuff</u> , as above	
1255	1270	50	<u>Shale</u> , as above	
		50	<u>Tuff</u> , as above	<u>Fluorescence as above, milky cut fluorescence</u>
1270	1290	80	<u>Shale</u> , as above	<u>20% fluorescence, bright yellow - tan, very little dull brown, straw cut, milky yellow cut fluorescence, trace oil stain, trace bleeding gas in fractures</u>
		20	<u>Tuff</u> , as above	
1290	1310	80	<u>Shale</u> , as above	
		20	<u>Tuff</u> , as above	<u>10% fluorescence, as above, milky cut fluorescence</u>
1310	1330	80	<u>Shale</u> , as above	<u>50% fluorescence as above, bright cream cut fluorescence</u>
		20	<u>Tuff</u> , as above	<u>very pale straw cut</u>
		Tr	<u>Siltstone</u> , light grey, salt and pepper, grading to very fine grained sandstone, hard, cement, occasionally calcareous	
1330	1340	70	<u>Shale</u> , as above, light grey-dark red brown, massive-laminated, in part calcareous, soft-hard	
		20	<u>Tuff</u> , as above	<u>70% fluorescent, cut fluorescence, as above</u>
		10	<u>Siltstone</u> , as above	

DITCH SAMPLES

Examined by Yeats 1020 to 1170
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
1020	1030	90	<u>Shale</u> , as above	<u>Fluorescence, as above, pale milky cut fluorescence</u>
		10	<u>Chert</u> , as above	
1030	1040	90	<u>Shale</u> , as above	<u>30% fluorescence as above, very pale milky cut fluorescence</u>
		10	<u>Chert</u> , as above, occasional pyrite	
1040	1050	90	<u>Shale</u> , as above	<u>50% fluorescence as above, trace bright yellow fluorescence, pale straw cut, milky cut fluorescence</u>
		10	<u>Chert</u> , as above	
1050	1060	90	<u>Shale</u> , as above	<u>60% fluorescence as above, milky cut fluorescence, straw cut, trace heavy oil stain</u>
		10	<u>Chert</u> , as above	
1060	1070	90	<u>Shale</u> , buff - dark brown, occasional black, occasionally laminated	
			<u>50% fluorescence, bright tan - dull brown pale straw cut,</u>	
		10	<u>Tuff</u> (or chert), massive, hard, pyritic, <u>bright cream cut fluorescence</u>	
1070	1080	70	<u>Shale</u> , as above	<u>40% fluorescence, as above, milky cut fluorescence, gas bleeds from 20% cuttings</u>
		30	<u>Tuff</u> , as above	
1080	1100	60	<u>Shale</u> , as above	<u>50% fluorescence, as above, pale straw cut, cut fluorescence as above, gas bleeds as above</u>
		40	<u>Tuff</u> , as above	
1100	1120	60	<u>Shale</u> , as above	<u>70% fluorescence, light grey-tan-dull brown, straw cut, bright cream cut fluorescence, gas bleeds from shale</u>
		40	<u>Tuff</u> , as above	
1120	1130	60	<u>Shale</u> , as above, light buff-dark brown, occasionally black, slightly calcareous, occasionally laminated	
		40	<u>Tuff</u> , light grey, massive, pyrite (pseudomorphs after biotite and hbl.) calcareous, occasionally silty	
			<u>60% fluorescence, yellow-dark brown straw cut, bright cream cut fluorescence, gas bleeds from shale</u>	
1130	1150	50	<u>Shale</u> , as above	
		50	<u>Tuff</u> , as above	<u>50% fluorescence, as above, pale straw cut, milky cut fluorescence</u>
1150	1160	40	<u>Shale</u> , as above	
		60	<u>Tuff</u> , as above	<u>60% fluorescence, cut, and cut fluorescence as above</u>
1160	1170	60	<u>Shale</u> , as above, relatively non-calcareous	<u>50% fluorescence as above; straw c., bright cream cut fluorescence</u>
		40	<u>Tuff</u> , as above, massive calcareous	

DITCH SAMPLES

Examined by Yeats 850 to 1020
 _____ to _____

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
850	860	90	<u>Shale</u> , as above	
		10	<u>Shale</u> , very dark brown, non calcareous - faintly calcareous <u>5% fluorescence, tan fading to dull brown</u>	
860	870	80	<u>Shale</u> , as above	
		20	<u>Shale</u> , very dark brown, as above, occasional black <u>5% fluorescence as above</u>	
870	880	70	<u>Shale</u> , tan - dark red brown, laminated, in part calcareous <u>5% fluorescence, tan fading to dull brown</u>	
		30	<u>Shale</u> , very dark brown, non-calcareous	
		Tr	<u>Siltstone</u> , very light buff, quartzose	
880	890	90	<u>Shale</u> , as above	<u>10% fluorescence, as above</u>
		10	<u>Shale</u> , very dark brown, as above	
		Tr	<u>Siltstone</u> , as above	
890	920		No samples	
920	950	100	<u>Shale</u> , buff-dark brown, massive, soft - hard in part calcareous <u>10% tan-dull brown fluorescence</u>	
950	960	90	<u>Shale</u> , as above, but less calcareous	
		10	<u>Chert</u> , grey, with occasional disseminated pyrite, in part laminated <u>10% fluorescence, as above; pale milky cut fluorescence</u>	
		Tr	<u>Sand</u> , as above	
960	970	80	<u>Shale</u> , as above	
		10	<u>Chert</u> , as above	<u>10% fluorescence, as above; cut fluorescence, as above</u>
		10	<u>Sand</u> , as above	
970	980	90	<u>Shale</u> , buff - dark brown, occasional black. Occasional fine green quartz inclusions <u>Fluorescence and cut fluorescence, as above</u>	
		10	<u>Shale</u> , light grey, occasional pyrite, occasionally laminated, cherty, calcareous	
980	990	90	<u>Shale</u> , buff - dark brown, as above. Occasionally laminated <u>Shale chips bled gas, 20% fluorescence, as above, straw cut, bright cream cut fluorescence</u>	
		10	<u>Shale</u> , siliceous to calcareous, light grey	
990	1010	90	<u>Shale</u> , buff - dark brown, as above	<u>30% fluorescence, as above, pale milky cut fluorescence</u>
		10	<u>Shale</u> , light grey, as above	
1010	1020	90	<u>Shale</u> , buff - dark brown, as above	<u>40% bright tan-dull brown fluorescence, straw cut, bright cream cut fluorescence</u>
		10	<u>Chert</u> , very light grey, hard, with small brown spots	

DITCH SAMPLES

Examined by Yeats 640 to 850
 to

Well Southman Canyon 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged
640	650	70	<u>Shale</u> , tan-brown, as above	
		30	<u>Shale</u> , dark red-black, as above	
650	660	70	<u>Shale</u> , tan-light brown, laminated, calcareous	
		30	<u>Shale</u> , medium red brown, massive, calcareous	
660	670	40	<u>Shale</u> , tan-light brown, as above	
		60	<u>Shale</u> , red brown, as above	
670	680	100	<u>Shale</u> , light brown - chocolate brown, massive, calcareous	
680	690	50	<u>Shale</u> , tan - light brown, massive	
		50	<u>Shale</u> , light brown - chocolate brown with occasional dark brown-black laminations	
690	700	40	<u>Shale</u> , tan-light brown, as above	
		60	<u>Shale</u> , light brown - chocolate brown, as above	
700	710	60	<u>Shale</u> , tan - light brown, as above	
		40	<u>Shale</u> , light brown - chocolate brown, as above	
710	720	50	<u>Shale</u> , tan - light brown, massive, soft, calcareous	
		50	<u>Shale</u> , light brown - chocolate brown, as above, except dark brown shales are non-calcareous	
720	740	30	<u>Shale</u> , tan - light brown, massive, calcareous hard to soft	
		70	<u>Shale</u> , light brown - chocolate brown, as above	
740	750	50	<u>Shale</u> , tan - light brown, as above	<u>10% bright tan fluorescence fading on exposure to dull brown fluorescence</u>
		50	<u>Shale</u> , light brown - chocolate brown, hard calcareous. Only traces of dark red brown - black shale	
750	780	50	<u>Shale</u> , tan - light brown, as above	
		50	<u>Shale</u> , light brown - chocolate brown, grading to dark brown - black, non calcareous oil shale	<u>No fluorescence</u>
780	790	50	<u>Shale</u> , tan - light brown, as above	<u>5% dull tan fluorescence</u>
		50	<u>Shale</u> , light brown - chocolate brown, as above Trace siltstone, buff, quartzose, non-calcareous	
790	810	100	<u>Shale</u> , tan - dark red brown laminated, in part calcareous	<u>5% fluorescence, as above</u>
810	850	100	<u>Shale</u> , as above	<u>10% fluorescence, as above</u>

DITCH SAMPLES

Examined by Yeats 340 to 640
 to

Well Southman Canyon No. 7
 Field or Area Wildcat

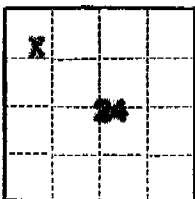
From	To	%	Shows Underlined	Samples Lagged (Not)
340	350	80 20	<u>Sandstone</u> , grey, U-L fine grain, well sorted, biotite inclusions <u>Siltstone</u> , grey	
350	360	90 10	<u>Sandstone</u> , as above <u>Siltstone</u> , as above	
360	380	100	<u>Shale</u> , grey-tan-brown, dolomitic oil shale. (Top of Green River Formation)	
380	390	100	<u>Shale</u> , as above, locally laminated	
390	400	70 30	<u>Shale</u> , as above, grading to black <u>Tuff</u> , grey occasional green	
400	430	100	<u>Tuff</u> , as above	
430	460	100	<u>Shale</u> , light tan-brown, dolomitic, streaks and specks of black glossy material (gilsonite?)	
460	470	60 40	<u>Shale</u> , light brown, dolomitic <u>Tuff</u> , light grey, sandy, locally laminated	
470	480		Sample skip	
480	500	100	<u>Shale</u> , brown-tan dolomite	
500	520	100	<u>Shale</u> , as above, becoming calcareous	
520	570	100	<u>Shale</u> , tan-brown, occasional red brown, calcareous, occasionally finely laminated	
570	580	70 30	<u>Shale</u> , as above <u>Tuff</u> , light tan-white, fine grain, streaks of red brown mineral	
580	590	60 40	<u>Shale</u> , as above <u>Tuff</u> , as above	
590	600	90 10	<u>Shale</u> , as above <u>Tuff</u> , as above	
600	610	90 10	<u>Shale</u> , as above <u>Tuff</u> , as above	
610	620	50 50	<u>Shale</u> , dark red brown, massive to laminated, non-calcareous <u>Shale</u> , tan-brown, as above	
620	630	60 40	<u>Shale</u> , tan-brown, as above <u>Shale</u> , dark red brown, as above	
630	640	60 40	<u>Shale</u> , dark red brown - black, carbonaceous in part, non calcareous very slightly calcareous <u>Shale</u> tan-brown, as above	

DITCH SAMPLES

Examined by Yeats 45 to 340
 to

Well Southman Canyon No. 7
 Field or Area Wildcat

From	To	%	Shows Underlined	Samples Lagged (Not)
45	60	80	<u>Siltstone</u> , light grey-green grey, microscopic mica	
		20	<u>Sandstone</u> , grey green, F-VF, well sorted, micaceous, calcareous	
60	70	90	<u>Siltstone</u> , as above	
		10	<u>Sandstone</u> , as above, grading to siltstone	
70	90	100	<u>Siltstone</u> , as above	
		tr	<u>Sandstone</u> , as above	
90	110	90	<u>Siltstone</u> , as above	
		10	<u>Sandstone</u> , light grey-buff, F-VF, micaceous, vari-colored grains, well sorted, well cemented, sub-angular - sub-round, slightly calcareous.	
110	120	80	<u>Siltstone</u> , as above	
		20	<u>Sandstone</u> , as above	
120	130	70	<u>Siltstone</u> , as above	
		30	<u>Sandstone</u> , as above	
130	140	50	<u>Siltstone</u> , as above	
		50	<u>Sandstone</u> , as above, with light brown laminations	
140	160	90	<u>Siltstone</u> , sandy, light grey-green to grey microscopic mica, calcareous	
		10	<u>Sandstone</u> , as above, vari-colored grains.	
160	170	40	<u>Shale</u> , grey, carbonaceous, brown laminations, fossil impressions	
		10	<u>Sandstone</u> , as above	
		50	<u>Siltstone</u> , as above	
170	190	60	<u>Shale</u> , as above	
		10	<u>Sandstone</u> , as above	
		30	<u>Siltstone</u> , as above	
190	200	90	<u>Sandstone</u> , green grey, fine grain, moderate-well sorted, sub-angular-round, slightly calcareous, 20% variegated grains, orange, green, black, brown, well consolidated, moderately friable.	
		10	<u>Siltstone</u> , very light grey, microscopic fossil casts	
200	210	100	<u>Sandstone</u> , as above	
210	230	90	<u>Sandstone</u> , as above	
		10	<u>Siltstone</u> , very light grey, sandy	
230	310	100	<u>Sandstone</u> , as above	
310	340	100	<u>Sandstone</u> , as above, becoming silty, trace gilsonite	



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYLand Office Salt Lake CityLease No. U-01307-A

Unit _____

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO ABANDON WELL	DST #1	<input checked="" type="checkbox"/>

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 24, 19 61

Unit
Well No. No. 7 is located 373 ft. from [N] line and 777 ft. from [W] line of sec. 24

<u>NW 24</u> ($\frac{1}{4}$ Sec. and Sec. No.)	<u>10 S., R. 23 E.,</u> (Twp.)	<u>S.L.R.M.</u> (Range)	<u>S.L.R.M.</u> (Meridian)
<u>Southern Canyon</u> (Field)	<u>Uintah County</u> (County or Subdivision)	<u>Utah</u> (State or Territory)	

Kelly RushingThe elevation of the ~~datum~~ above sea level is 4943.2ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Status: Spudded 9-30-6110-2-61: Ran and cemented 16" conductor pipe at 42'. Cemented with 147 sacks plus 2% Calcium Chloride.10-6-61: Ran and cemented 10-3/4", 40.5# J-55, ST&C casing with shoe at 630' with 595 sacks. Last 145 sacks treated with 2% calcium chloride. Recemented outside with 405 sacks plus 2% calcium chloride.10-14-61: Ran and cemented 7" 23#, J-55, ST&C casing at 3067' with 250 sacks cement.10-21-61: DST No. 1 3547-3600': I.O. 15 min, ISI 1-1/2 hrs., open 1 hour, PSI 1-1/2 hrs. Moderate air blow 45 min., then decreased to weak. No gas to surface. Reversed out. Estimated recovery 5 bbls. slightly watery mud. ISIP 1565# still rising, IFP 60#, PFP 80, PSIP 1235, still rising HP 1720/1642.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil CompanyAddress P.O. Box 1200Farmington, N.M.Original Signed By
W. M. MARSHALL

By _____

W.M. MarshallTitle Division Exploitation Engineer

SHELL OIL COMPANY

WEEK ENDING 10-30-61

CORE FROM 4741 TO 4773

CORES EXAMINED BY R. S. Yeats

CORE RECORD

AREA OR FIELD

COMPANY Shell Oil Co.

LEASE AND WELL NO. Southman Canyon 7

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
2	4741	4773	31.5'	1.5' <u>Shale</u> , hard, gray, mottled with yellow 1.5' <u>Siltstone</u> , hard, gray mottled with blue green and dark green shale, hard 2' <u>Shale</u> , blue gray, slickensided, hard. 1' <u>Siltstone</u> , grading to sand, very fine, poor sort, green gray, hard, silty 5.5' <u>Shale</u> , blue gray, irregular mottled with yellow 0.5' <u>Siltstone</u> , green gray, poor sort, micaceous, sandy, hard 0.5' <u>Shale</u> , blue gray, as above 0.5' <u>Shale</u> , gray black, with laminae of soft maroon clay 2' <u>Siltstone</u> , gray, massive, sandy, hard 0.5' <u>Shale</u> , dark blue gray, laminated yellow, hard 3' <u>Siltstone</u> and <u>shale</u> , laminated, gray, blue green, hard 0.5' <u>Shale</u> , very dark gray, laminated, hard 0.5' <u>Shale</u> , gray, laminated 6.5' <u>Shale</u> , very dark gray to black, with white laminations, local red clay partings 1.5' <u>Shale</u> , tan to gray, hard 1' <u>Shale</u> , gray, massive 0.5' <u>Shale</u> , tan as above 2' <u>siltstone</u> and very fine, poorly sorted sandstone, laminated, green gray 0.5' <u>Shale</u> , gray black, laminated	1		NOSCF No Flash

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

WEEK ENDING November 6, 1961

AREA OR FIELD Southman Canyon

CORE FROM 5384 TO 5434

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY R. S. Yeats

Southman Canyon
LEASE AND WELL NO. Unit No. 7

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
3	5384	5434	45.5'				
	5384	5385.5	1.5	<u>Shale</u> , dark gray, massive. Upper 6" contains 2" bed of sand, hard, very fine. Upper contact of sand is laminated with shale. Laminations are strongly disturbed by organisms and crinkled due to contemporaneous deformation.	2 1		
	5385.5	5387	1.5	<u>Shale and sandy Siltstone</u> , light-dark gray, sandy, laminated, with much contortion and faulting of laminations. Sandier toward base. Lighter colored areas are sandy siltstone.	C		
	5387	5389	2	<u>Sand</u> , very fine-fine, hard, biotite, white. Upper 1' faintly laminated with 1/2" bed of shale fragments at base. Lower 1' is finely laminated and cross-bedded.	S		
	5389	5391	2	<u>Shale and Siltstone</u> , strongly disturbed bedding. Grades into sand below.	C		
	5391	5395	4	<u>Sand</u> , very fine-fine, laminated at top and only faintly bedded (nearly massive) at base. Lithology as above.	S		
	5395	5408.5	13.5	<u>Shale and Siltstone</u> , massive in upper part, laminated in lower part with contorted, faulted laminations. Local carbonaceous streaks on bedding planes. Upper part is strongly slickensided.	C		
	5408.5	5429.5	21	<u>Sand</u> , as above, hard-difficultly friable, massive-laminated, dark paper-thin laminations are made up of carbonaceous shale and siltstone. Locally cross-bedded. Local evidence of disturbed bedding due to organisms. One "worm tube" perpendicular to bedding is greater than 3" long. Basal 1' is full of flattened, angular clasts of dark gray shale, flattened parallel bedding.	S		
				Diamond Core Head			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

WEEK ENDING November 12, 1961CORE FROM 5883 TO 5933CORES EXAMINED BY R. S. Yeats

CORE RECORD

AREA OR FIELD Southman CanyonCOMPANY Shell Oil CompanyLEASE AND WELL NO. Southman Canyon
Unit No. 7

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
4	5883	5933	49.5	<u>Sand</u> , with occasional carbonaceous shale partings, <u>trace-80% bright yellow-dull blue white fluorescence, hydrocarbon odor.</u>	S		
	5883			Small fragment of dark gray shale.	C		
	5883	5901	18	<u>Sand</u> , very fine, difficultly friable-hard, well sorted, subangular-rounded, <u>5% bright blue-white to yellow-white fluorescence and 50-60% very pale blue white fluorescence. At base, 40% pale fluorescence.</u>	S		
	5901	5902.5	1.5	<u>Shale</u> , dark gray, carbonaceous.			
	5902.5	5907	4.5	<u>Sand</u> , very fine, laminated with carbonaceous partings. <u>Trace bright blue white fluorescence.</u>	S		
	5907	5912	5	<u>Sand</u> , very fine-fine, massive, well sorted, difficultly friable-hard, subangular-rounded, <u>80% fluorescence including 30% bright blue white fluorescence.</u>	S		
	5912	5912.5	.5	<u>Shale</u> , gray, massive.	C		
	5912.5	5932.5	20	<u>Sand</u> , very fine-fine, friable-hard, well sorted, subangular-rounded, <u>30% dull blue white fluorescence in top 12 feet. Below, grades to bright blue-white to yellow-white fluorescence, covering 80% of sand.</u>	S		
				Diamond Core Head.			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

X			

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYLand Office Salt Lake City, UtahLease No. U-13,701

Unit _____

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	X
NOTICE OF INTENTION TO ABANDON WELL.....		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 14, 19 61

Unit
Well No. No. 7 is located 373 ft. from N line and 777 ft. from W line of sec. 24
NW/4 24 10 S 23 E S.L.B.M.
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Southern Canyon Uintah County Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4942 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

- 11-1-61 DST #2 4789-4860: IO 15 min., ISI 1-1/2 hr., open 1 hr., PSI 1-1/2 hr., strong blow decreasing to moderate. No observed gas to surface. ISIP/PSIP 1070/1330, IFF/TFP 75/75, IHP/THP 2400.
- 11-10-61 DST #3 5608-5718: IO 15 min., ISI 2-1/2 hrs., flow 1 hr., PSI 1-1/2 hrs., gas to surface 12 min. Strong to very strong. 217 MCF/D. Rec. 270' (1.3 bbls.) slightly gas cut mud. ISIP/PSIP 2850/2735, IFF/TFP 80, IHP/THP.
- 11-12-61 DST #4 5632-5976: IO 15 min., ISI 1-1/2 hr., flow 1 hr., PSI 1-1/2 hr., 13 MCF/D. rec. 270' (1.1 bbls.) SOCM ISIP 2585, IFF/TFP 185/220, PSIP 2920, IHP/THP 3590/3645

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil CompanyAddress P. O. Box 1200
Farmington, New MexicoOriginal Signed By
W. M. MARSHALLBy W. M. Marshall
Title Division Exploitation Engineer

SHELL OIL COMPANY

WEEK ENDING 11-17-61

CORE FROM 6170 TO 6210

CORES EXAMINED BY R. S. Yeats

AREA OR FIELD Uintah Co., Utah

COMPANY Shell

Southman Canyon 7
LEASE AND WELL NO. _____

CORE RECORD

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL- GAS
							CORE OR DITCH
5	6170	6210	40'	<p>6170' - Few fragments. <u>Shale</u>, medium gray, silty, carbonaceous, calcareous</p> <p>6170-78' - <u>Sand</u>, very fine-fine, angular-sub-round, pale brownish gray, very slightly calcareous, difficultly friable-hard, grading to friable at base, fair sorting. Massive with one laminated coaly <u>shale</u>. Occasional fragments, coal near base. <u>20% pale blue fluorescence at top with 5% pin point bright cream fluorescence near base, 81% dull blue-white fluorescence oil odor.</u></p> <p>6178-79 - <u>Shale</u>, dark gray-dark grayish brown with partings of <u>coal</u>. Also coal fragments in bedding plane. Sooty, low specific gravity, relatively massive, very slightly calcareous.</p> <p>6179-86 - <u>Shale and siltstone</u>, laminated white-very dark gray, occasional laminates coal (black). Laminates are crumpled and distorted. <u>Shale</u> is carbonaceous, dark gray-dark grayish brown. Slickensided common grades downward to massive, very dark gray coaly shale.</p> <p>6186-90 - <u>Shale and siltstone</u>, with distributed laminations, common slickensided <u>siltstone</u> is light gray, very fine sandy, shaly, <u>shale</u> is dark gray.</p> <p>6190-98 - <u>Sand</u>, difficultly friable-hard, laminated with carbonaceous <u>shale</u>, very fine, quartzose, spotted, very pale brown, almost no black grains, fair sorting, calcareous, subangular-subround, silty. Many slickensided and angular flat carbonaceous shale fragments and partings. Vertical fracture near base lined with white to colorless vein filling of calcite. <u>30% very pale blue fluorescence.</u></p> <p>6198-6202 - Laminated <u>shale</u> (dark gray-dark grayish brown) <u>siltstone</u>, (light gray, quartzose, sandy) and <u>coal</u> (black, glossy, fracture, powders to russet brown).</p> <p>6202-10 - Massive <u>shale</u> and <u>coal</u>, dark gray-dark grayish brown, black, laminated siltstone, near base.</p> <div style="display: flex; justify-content: space-between;"> <div> P & P Samples and GO 6170 common 6190 common 6197 6173 scribe 6193 scribe 6177 mark mark </div> <div> Shale Density Samples 6179, 6182, 6203, 6210 </div> </div>			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

CORE RECORD

WEEK ENDING 11-22-61CORE FROM 6436 TO 6486CORES EXAMINED BY YeatsAREA OR FIELD Uintah County, UtahCOMPANY ShellLEASE AND WELL NO. Southman Canyon 7

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
6	6436	6486	49'	36' Shale, Siltstone and Coals + 13' Sand			
	6436	6443		Laminated Shale and Siltstone: Shale is dark grey, carbonaceous; Siltstone is light grey. Much disturbed bedding			
	6443	6443½		Interbedded dark grey Shale and thin Coal seams			
	6443½	6449½		Laminated Shale and Siltstone, as above			
	6449½	6451		Interbedded dark grey Shale and Coal, with 8" Coal seam at top			
	6451	6464		Laminated Shale and Siltstone, as above			
	6464	6466		Laminated Sand, very fine, hard, white, laminated with Shale Mudstone crossbedding			
	6466	6473		Laminated Shale and Siltstone, as above, with two 1' beds of laminated sand, as above			
	6473	6483		Sand, very fine-fine, very light brown, laminated, carbonaceous cross-bedded; bottom part full of angular carbonaceous fragments			
	6483	6485		Coal (1' missing)			
	6485	6486		Sand, laminated, as above			
				<u>Diamond Core Head</u>			
				Samples			
				Porosity and Permeability, Grain orientation			
				6466			
				6470			
				6478			
				6482			
				6486			
				Shale Density			
				6442 (laminated shale and siltstone)			
				6443 (coal)			
				6484 (coaly shale)			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). I-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). 5-SAND (90-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

X		
	24	

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City

Lease No. U-01307-A

Unit _____

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	X	SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL		DST	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 22, 19 61

Unit _____
Well No. 7 is located 373 ft. from N line and 777 ft. from W line of sec. 24

24 10 S. 23 E. S1RM
(24 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Southern Canyon Utah Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the Kelly Bushing derrick floor above sea level is 4943.2 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DST No. 5 6130-6210, IO 15 min, ISI 91 min, Open 1 hr. FSI 90 min, Gas to surface 9 min, Initial Rate 234 MCF/D, Final Rate 92 MCF/D, Recovered 215 feet slightly gas out mud. ISIP 3670, FSIP 3370, IFP 85, FFP 155, HP 3870/3880

Status: Elev. 4943 MB, Casing 10-3/4" @ 650', 7" @ 3067. TD 6436

Proposed Work:

1. Run 4-1/2" - 11.6 lb - J55 casing to bottom and cement with 200+ sacks
2. Run 2-3/8" - 4.7 lb - J55 to bottom and circulate clean water.
3. Pull tubing to 5500 feet \pm . Install Christmas Tree. Pressure test wellhead and casing with 4000 psi for 15 min.
4. Perforate 10 holes in interval 5600-6200. For limited entry frac.

(Over)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company

Address P. O. Box 1200

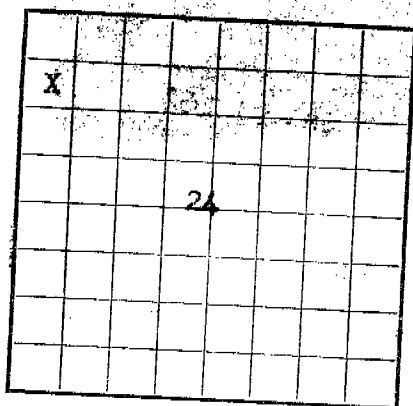
Farmington, New Mexico

Original Signed By
W. M. MARSHALL

By W. M. Marshall
Title Division Exploitation Engineer

NOV 24 1961

5. Fracture down tubing and annulus simultaneously using 40,000 gallons of 3% hydrochloric acid, 800 pounds Dowell J-98, 35,000 pounds of 20-40 sand and 250 pounds 12-20 walnut shells. Pressure not to exceed 4000 psi at surface.
6. Place well on production.



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

U. S. LAND OFFICE Salt Lake City,
SERIAL NUMBER U-01307-A Utah
LEASE OR PERMIT TO PROSPECT _____

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address P.O. Box 1200, Farmington, N. Mex.
Lessor or Tract _____ Field Southman Canyon State Utah
Well No. 7 Sec. 24 T. 10S. R. 23E. Meridian S.L.B.M. County Uintah
Location 373 ft. S. of N. Line and 777 ft. E. of W. Line of Sec. 24 Elevation 4942
(Derrick floor relative to sea level)
The information given herewith is a complete and correct record of the well and all work done thereon
so far as can be determined from all available records.
Original Signed By W. M. MARSHALL
Signed _____
Date _____
W. M. Marshall
Title Division Exploitation Engr.

The summary on this page is for the condition of the well at above date.

Commenced drilling September 30, 1961 Finished drilling November 23, 1961

OIL OR GAS SANDS OR ZONES

(Denote gas by G)
Gross
No. 1, from 5612 to 5800 G No. 4, from _____ to _____
No. 2, from 6140 to 6230 G No. 5, from _____ to _____
No. 3, from 6360 to 6420 G No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from None Noted to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<u>10-3/4</u>	<u>40.5</u>			<u>41</u>					<u>Conductor</u>
<u>7</u>				<u>650</u>					<u>Surface</u>
<u>4-1/2</u>	<u>11.6</u>			<u>3066</u>					<u>Intermediate</u>
				<u>6486</u>					<u>Production</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>16</u>	<u>41</u>	<u>147</u>	<u>Displacement</u>		
<u>10-3/4</u>	<u>650</u>	<u>595</u>	<u>Displacement</u>		
<u>7</u>	<u>3066</u>	<u>250</u>	<u>Displacement</u>		
<u>4-1/2</u>	<u>6486</u>	<u>200</u>	<u>Displacement</u>		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 6486 feet, and from _____ feet to _____ feet
 Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

_____, 19____ Put to producing 12 7 61 _____, 19____
 The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____%
 emulsion; _____% water; and _____% sediment. Gravity, °Bé. _____
 If gas well, cu. ft. per 24 hours 4,300,000 Gallons gasoline per 1,000 cu. ft. of gas _____
 Rock pressure, lbs. per sq. in. _____

EMPLOYEES

C. Middleton, Driller

R. L. Manning Drilling Co., Driller

D. McAdam, Driller

C. Elledge, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
375	3110	2735	Green River
3110	4980	1870	Wasatch
4980	—		Mesaverde
See Attached Drilling History			
50		1000 FEET	FORMATION

(OVER)

16--48094-4

2961	1	1	NW

JAN 1 1962

RECEIVED

JAN 1 1962

JAN 1 1962

DRILLING REPORT
FOR PERIOD ENDING

12-1-61

Southman Canyon

(FIELD)
Uintah, Utah

(COUNTY)

24

(SECTION OR LEASE)

T10S., R23E., S16M

(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS																																																																																																																							
	FROM	TO																																																																																																																								
12-1			Only three of the four Allison pumpers connected to the annulus were utilized throughout most of the job since the casing pressure limit of 4000 psi was reached in the early part of the treatment before the Allisons were brought up to full power.																																																																																																																							
12-2			Shut-in pressure 1925 psi tubing and 1800 psi casing. Opened well up slowly at 9:30 AM. Flowed gas, load water and water mist at restricted rates to 1,500 MCF/D and 200 B/D water through various choke sizes of 13/64" to 26/64". Flowing pressures were 1400-1850 psi tubing and 1800-2000 psi casing. Flared 15 foot orange flame. Left well flowing overnight on 24/64" choke. Tubing pressure 1550 psi, casing pressure 2000 psi.																																																																																																																							
12-3			<table><tr><th>Time</th><th>Tubing Pressure</th><th>Casing Pressure</th><th>Wellhead Choke Size</th><th>Separator Pressure</th><th>Flow Rate, MCF/Day</th><th>Remarks</th></tr><tr><td>9:15AM</td><td>2620</td><td>2840</td><td>24/64"</td><td>-</td><td>-</td><td>Choke partially froze.</td></tr><tr><td>10:30</td><td>1450</td><td>2450</td><td>29/64"</td><td>-</td><td>-</td><td>Flowing water & condensate @ 720-860 B/D</td></tr><tr><td>11:00</td><td>1300</td><td>2200</td><td>28/64"</td><td>45-50</td><td></td><td></td></tr><tr><td>12:30PM</td><td colspan="6">(Shut-in until 2:30 PM)</td></tr><tr><td>2:30</td><td>2300</td><td>2700</td><td colspan="4">(opening up gradually)</td></tr><tr><td>3:25</td><td>1125</td><td>2200</td><td>21/64"</td><td>70-90</td><td></td><td></td></tr><tr><td>3:45</td><td>760</td><td>1700</td><td>22/64"</td><td>85</td><td></td><td></td></tr><tr><td>4:00</td><td colspan="6">(Shut-in to install flowprover)</td></tr><tr><td>4:15</td><td>1025</td><td>1700</td><td>18/64"</td><td>80</td><td>1,870</td><td></td></tr><tr><td>4:45</td><td>850</td><td>1550</td><td>18/64"</td><td>80</td><td>2,220</td><td>water rate=672B/D</td></tr><tr><td>5:00</td><td>800</td><td>1500</td><td>18/64"</td><td>75-85</td><td>2,220</td><td></td></tr><tr><td>5:20</td><td>750</td><td>1300</td><td>18/64"</td><td>85-90</td><td>2,370</td><td></td></tr><tr><td>5:30</td><td>700</td><td>1250</td><td>18/64"</td><td>85</td><td>2,370</td><td>SI well & removed flowprover</td></tr><tr><td>5:45</td><td>1200</td><td>1500</td><td colspan="4">(shut-in)</td></tr><tr><td>6:00</td><td>1100</td><td>1500</td><td>13/64"</td><td>-</td><td></td><td>Lit flare</td></tr><tr><td>6:30</td><td>1060</td><td>1550</td><td>12/64"</td><td>20</td><td></td><td></td></tr></table> <p>Left well flowing overnight on 12/64" choke. Approximately 500 barrels of load water out.</p>	Time	Tubing Pressure	Casing Pressure	Wellhead Choke Size	Separator Pressure	Flow Rate, MCF/Day	Remarks	9:15AM	2620	2840	24/64"	-	-	Choke partially froze.	10:30	1450	2450	29/64"	-	-	Flowing water & condensate @ 720-860 B/D	11:00	1300	2200	28/64"	45-50			12:30PM	(Shut-in until 2:30 PM)						2:30	2300	2700	(opening up gradually)				3:25	1125	2200	21/64"	70-90			3:45	760	1700	22/64"	85			4:00	(Shut-in to install flowprover)						4:15	1025	1700	18/64"	80	1,870		4:45	850	1550	18/64"	80	2,220	water rate=672B/D	5:00	800	1500	18/64"	75-85	2,220		5:20	750	1300	18/64"	85-90	2,370		5:30	700	1250	18/64"	85	2,370	SI well & removed flowprover	5:45	1200	1500	(shut-in)				6:00	1100	1500	13/64"	-		Lit flare	6:30	1060	1550	12/64"	20		
Time	Tubing Pressure	Casing Pressure	Wellhead Choke Size	Separator Pressure	Flow Rate, MCF/Day	Remarks																																																																																																																				
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12-4			11:00 AM Shut-in. Line cut out immediately down stream from choke. Well had flowed at essentially unrestricted rate for unknown time.																																																																																																																							

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

Jack L. Thurber

SIGNED

DRILLING REPORT
FOR PERIOD ENDING

T10S., R23E., S16M
(SECTION OR LEASE)

Southman Canyon

(FIELD)

Uintah, Utah

(COUNTY)

(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS	
	FROM	TO		
12-5			Installed new choke and repaired wellhead. Cleaned out cellar. 1:50 PM 2610 2675 - - Static 2:10 2575 2610 12/64" - 2:45 2475 2610 12/64" - 3:00 Shut-in to check choke. OK. 3:10 2450 2500 14/64" 80 1,850 3:50 2350 2450 14/64" 58 - 5:00 2200 2200 14/64" 45 1,160 No water. 5:05 2250 2300 5 min. shut-in Cond. rate 50 B/D 12-6 12:30 PM 2600 2550 - - Static 1:00 2450 2550 22/64" - 5,250 1:05 2200 2425 23/64" - 5,530 1:10 2000 2300 23/64" - 5,530 1:15 1900 2300 23/64" - 4,270 1:24 1900 2300 23/64" - 4,270 Took gas and Cond. samples for analysis 1:25 Shut-in for static temperature survey. Condensate gravity 70° API (hydrometer)	
12-7			Attempted to run McCullough temperature sonde. Instrument would not drop against well pressure. Lubricator leaked badly. Left well shut-in.	

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

Jack L. Thurber

SIGNED

Southman Canyon

(FIELD)

Uintah, Utah

(COUNTY)

DRILLING REPORT

FOR PERIOD ENDING

12-1-61

24

(SECTION OR LEASE)

T. 10 S., R. 23 E., SLEM

(TOWNSHIP OR RANCH)

DAY	DEPTHS		REMARKS
	FROM	TO	
11-29		6486 (TD)	Ran McCullough Gamma Ray-Collar Locator Log. Preparing to perforate.
11-30			Pressure tested Christmas tree and casing to 4000 psi for 15 minutes, OK. Perforated 4-1/2" casing with 2 - 13/32" jet holes facing 180° at each of the following depths: 5654, 5763, 6165, 6225, and 6364. Used McCullough 1 11/16" O.D. through-tubing Mac-Jet perforating gun. Surface pressure was 200 psi after perforating.
12-1			<p>Acid frac well down tubing and casing using the limited entry technique. Treatment consisted of 40,000 gallons 3% HCL (prepared in tank from 28% HCL), 32,000 lb. 20-40 mesh sand, 900 lb. Dowell J-98 friction-reducing agent @ 20lb./1000 gallon, and 250 lb. 12-20 walnut shells.</p> <p>Attempted to reverse water from the annulus and tubing with acid water. A pressure surge blew the top out of the receiving tank and 74 barrels of 3% acid water were sprayed over the location, men and equipment. No one was injured. The water remaining in the tubing and annulus was left in the well and displaced ahead of the acid water at the beginning of the acid water at the beginning of the fracture treatment.</p> <p>The formations were fractured by pumping down the annulus with 4 Allison pumps and leaving the tubing closed in until the treating sand and fluid was entering the formation at a constant rate and pressure. The initial breakdown pressure was 2700 psi at 10 B/Min. down the annulus which broke back to 6 B/Min. at 2400 psi and then increased gradually to 14 B/Min at 3800 psi casing pressure. At this rate, the tubing closed-in pressure was 2950 psi; thereby indicating that the friction loss down the annulus was 3800 minus 2950 = 850 psi. This was @ 14 B/M using 20 lb/gal. J-98 in the acid water and 1/4 #/gal. sand. A pumping rate of 6 B/min. was then established down the tubing utilizing one Allison pumper, which brought the total rate to 18-20 B/min with casing pressures of 3850-4000 psi. These rates and pressures were then maintained for the remainder of the job. The sand was started at a concentration of 1/4#/gal. and increased in 1/4#/gal. increments to 1-1/4 #/gal. at the latter part of the treatment with an average rate of 0.8#/gal. The walnut shells were tailed-in at the end of the job. The treating fluid and walnut shells were displaced with 74 barrels of acid water down to the top of the perforations and the well shut-in. The immediate shut-in pressure was 1970 psi @ 11 AM; 1970 @ 11:30 AM, 1400 @ 3:30 PM, 1300 @ 4:30 PM and 5:30 PM. The well was then left shut-in overnight.</p>

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

Jack L. Thurber

SIGNED

X			
	24		

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.
Form Approved.

Land Office Salt Lake City, Utah
Lease No. U-01307-A
Unit Southman Canyon

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	X
NOTICE OF INTENTION TO ABANDON WELL.....	<u>Completion Report</u>	X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Southman Canyon January 8, 1962
Well No. 7 is located 373 ft. from N line and 777 ft. from EX line of sec. 24
SW NW 24 103 23E S12M
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Southman Canyon Uintah Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the Kelly Bushing above sea level is 4943.2 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Ran 206 joints of 4-1/2", 11.6#, J-55, STAC casing. Landed at 6486'. Cemented with 200 sacks "A" cement plus 4% gel. Found top of cement at 6437. Pressure tested Christmas tree and casing to 4000 psi for 15 min., O.K.

Perforated 4-1/2" casing with 2 (13/32") jet holes facing 180° at each of the following depths: 5654, 5763, 6165, 6225, and 6364.

Acid free with 40,000 gallons 3% HCL, 32,000# 20-40 mesh sand, 900# Dowell J-98 and 250# 12-20 walnut shells, average rate of 18-20 bbls./min. with 3850-4000 psi.

Representative Initial Rate 4.3 MCF/D on 23/64" choke, 1900 TP, 2300 CP.

Left well shut in.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company

Address Post Office Box 1200

Farmington, New Mexico

Original Signed By
W. M. MARSHALL

By W. M. Marshall

Title Division Exploitation Engineer

**Branch of Oil and Gas Operations
8416 Federal Building
Salt Lake City, Utah 84111**

October 28, 1966

**Shell Oil Company
P. O. Box 1200
Farmington, New Mexico 87401**

Gentlemen:

**On October 20 and 21 we visited Shell's operations in the Southern
Canyon (unit), Uintah County, Utah, and noted that everything was in
good condition except for a missing sign at well 7. Accordingly,
you should have a sign which correctly identifies the well erected
in a permanent and conspicuous manner.**

Sincerely yours,

(ORIG. SGD.) R. A. SMITH

**Rodney A. Smith
District Engineer**

**cc: State Oil & Gas Conservation Commission
348 East South Temple, Suite 301
Salt Lake City, Utah**



Consolidated Oil & Gas, Inc.

Executive Offices

4150 EAST MEXICO AVENUE
DENVER, COLORADO 80222
PHONE 737-5441

December 12, 1967

Mr. Cleon B. Feight, Director
Utah Department of Natural Resources
Division of Oil & Gas Conservation
348 East South Temple, Suite 301
Salt Lake City, Utah 84111

Dear Mr. Feight:

Acquisition of Various
Shell Operated Properties
in State of Utah

Effective October 12, 1967, Consolidated Oil & Gas, Inc. of Denver, Colorado purchased and took over active operation of certain Shell properties in the state of Utah. Our clerical section of the production department has been in contact with your department insofar as filing various forms. However, I am sending to you a brief description of the wells in this letter.

In the southeast corner of Utah in San Juan County, we are operating two wells in the Akah field. Well #43-28 is located in Section 28, *Valley Superior* T42S, R22E, and North Boundary Butte #1 is located in Section 33. The proper name of this field may be North Boundary Butte instead of Akah.

We are operating five wells in the Tohonadla field. All of these wells are located in T41S, R21E. In Section 35 we have wells #1, #23, #32 and #43. Two other wells, #12 and #41, are temporarily abandoned. In Section 25 we are operating well #41.

In Desert Creek field we are operating well #2 which is located in Section 35, T41S, R23E. Well #26, located in Section 36, is temporarily abandoned. ✓

In Recapture Creek field we are operating Unit #1 located in Section 21, T40S, R23E. ✓

Mr. Cleon B. Feight

- 2 -

December 12, 1967

In the Bluff field we are operating well #3, located in Section 4, and wells #24 and #44, located in Section 5, T40S, R23E.

Northwest of Moab in the Salt Wash field, Grand County, we are operating the C. F. & I. #22-16 and #42-16 wells located in Section 16, T23S, R17E.

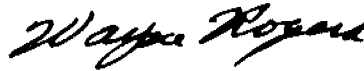
In the Southman Canyon area southeast of Vernal, Uintah County, we are operating the Southman Canyon #7 gas well located in Section 24, T10S, R23E.

We will keep you advised of our progress on the Salt Wash well #22-16.

Consolidated operates in 13 states, including Utah, and we have had complete cooperation with the various state regulatory agencies. Please feel free to request additional information on any of our operations. We intend to have a pleasant, business-like relationship with you and we will cooperate with you to the fullest.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.



Wayne Rogers
Production Manager

WR/jau

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYLAND OFFICE _____
LEASE NUMBER _____
UNIT SOUTHMAN CANYON

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Uintah Field SOUTHMAN CANYONThe following is a correct report of operations and production (including drilling and producing wells) for the month of September, 1925 Unit _____Agent's address 1860 Lincoln Street Company CONSOLIDATED OIL & GAS, INC.
Denver, Colorado 80203 Signed Geraldine BengtsonPhone (303) 255-1751 Agent's title Production Accountant

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
PRICE RIVER PARTICIPATING AREA										
NE NE 29	10S	24E	4	0	0	--	0	0	0	P&A
MESAVERDE PARTICIPATING AREA "B"										
NW NW 24	10S	23E	7	07	0		657	0	0	F
NON-PARTICIPATING										
NE SW 32	10S	24E	8	0	0	--	0	0	0	TA
TOTALS										
					0		657		0	
GAS: (MCF)										
Sold <u>650</u>										
Vented/Flared <u>0</u>										
Used On Lease <u>7</u>										
Lost <u>0</u>										
Reason _____										
OIL or CONDENSATE: (Barrels)										
Sold <u>0</u>										
Used <u>0</u>										
Unavoidably Lost <u>0</u>										
Reason _____										
WATER: (Barrels)										
Disposition <u>0</u>										
Pit <u>0</u>										
Injected <u>0</u>										
Other <u>0</u>										

NOTE.—There were 0 runs or sales of oil; 650 M cu. ft. of gas sold;no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U013-07B
2. NAME OF OPERATOR Consolidated Oil & Gas, Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. BOX 2038, Farmington, New Mexico 87499		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 373' FNL & 777' FWL		8. FARM OR LEASE NAME SOUTHMAN CANYON
14. PERMIT NO.		9. WELL NO. 7
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4932' GR		10. FIELD AND POOL, OR WILDCAT Wildcat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 24, T10S, R23E
		12. COUNTY OR PARISH Uinta
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANE

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

This well is nonproductive. We intend to plug & abandon as follows:

- 1) MIRUSU, install BOP. TOH w/ tubing.
- 2) Set cast iron bridge plug @ 5650' covering production zone from 5654'-6364'.
- 3) TIH w/ tbg & set 17 cu ft cement plug on top of bridge plug.
- 4) Fill hole w/ 9 PPG mud to 3166'.
- 5) Perf 4-1/2" csg @ 3166'. TIH w/ packer & pump 58 cu ft cement. Displace to 2966', leaving 200' plug inside & outside 4-1/2" csg 100' above & 100' below intermediate shoe.
- 6) Fill hole w/ 9 PPG mud to 650'.
- 7) Set 17 cu ft plug 100' above & 100' below surface shoe inside 4-1/2" csg from 750' to 550'.
- 8) Try to squeeze bradenhead between 7" & 4-1/2" csg.
- 9) Set 29 cu ft cement plug at surface.
- 10) Install P. & A marker.
- 11) Clean up location.

ACCEPTED
APPROVED BY THE STATE
OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7/13/84
BY: [Signature]
DIVISION OF OIL, GAS & MINING

RECEIVED

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE

Drilling Foreman

DATE

7-3-84

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPL
(Other instructions
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U013-07B	
2. NAME OF OPERATOR Consolidated Oil & Gas, Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR P.O. Box 2038, Farmington, NM 87499		7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State laws and regulations. See also space 17 below.) At surface 373' FNL & 777' FWL		8. FARM OR LEASE NAME SOUTHMAN CANYON	
14. PERMIT NO.		9. WELL NO. 7	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4932' GR		10. FIELD AND POOL, OR WILDCAT Wildcat	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 24, T10S, R23E	
		12. COUNTY OR PARISH Uintah	
		13. STATE Utah	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

- 11-8-84 MIRUSU. Killed well, removed wellhead. Installed BOP.
- 11-9-84 TOH w/ tbg. Set 4-1/2" cast iron BP @ 5650'. Pump 15 sks (17 cu ft) cmt plug from 5650' to 5455'. Spot 9# mud plug from 5455' to 3166'. TOH. Pr test to 500 psi 30 min, OK. Perf 2 shots @ 3166'.
- 11-10-84 Set full bore pkr @ 2760' & squeeze w/ 50 sks (58 cu ft) cmt & displace to 2966' leaving 200' inside & outside csg 100' above & below surface shoe. Circ drlg mud out & TOH w/ pkr. TIH & tag plug @ 2023'. Squeeze bradenhead w/ 18 sks (21 cu ft) & displace to 2023'. TIH & fill w/ 9# mud to 750'. Set 15 sks (17 cu ft) cmt plug from 750' to 550' covering surface shoe. Fill csg w/ 9# mud from 750' to 300'. Set 26 sks (30 cu ft) cmt plug from 300' to surface. TOH. (Bradenhead already squeezed.) Set P & A marker & cleaned up location.

18. I hereby certify that the foregoing is true and correct

SIGNED Barbara C. Rex

TITLE Prod. & Drlg. Technician DATE 11-20-84

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

*See Instructions on Reverse Side

DATE: 11/26/84

BY: John R. B...